INDIAN LOGIC AND ATOMISM

AN EXPOSITION OF THE

NYĀYA AND VAIÇEṢIKA SYSTEMS

BY

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PREFACE

WHILE the philosophy of the Vedanta is well known in Europe the Nyaya and Vaiçesika the Indian systems of logic and realism have attracted hardly a tithe of the interest due to them as able and earnest efforts to solve the problems of knowledge and being on the basis of reasoned argument The systems are indeed orthodox and admit the authority of the sacred scriptures but they attack the problems of existence with human means and scripture serves for all practical purposes but to lend sanctity to results which are achieved not only without its aid but often in very dubious harmony with its tenets.

The neglect of these schools in Europe is abundantly explained by the nature of the original sources The contempt of Indian science for the uninitiated has resulted in modes of expression unequalled for obscurity and difficulty, the original text books the Sutras present endless enigmas which I have not one feels assured yet been solved and which in most cases will never yield their secrets The works of the Navîdeva school of Bengal in their details frequently defy explanation and in translation are more obscure if possible than their originals Hence even historians of Indian philosophy like Professors F Max Müller and P Deussen have contented themselves with sketches which ignore entirely the serious and valuable thought of these schools The result

is gravely embarrassing for any serious study of Indian philosophy as a whole and for this reason I have deemed it desirable to attempt to set out the fundamental doctrines of the systems with due regard to their history and their relations to Buddhist philosophy The difficulty of the task is such that no absolutely certain results can be achieved the Sutras are still presented in India in the light of centuries of development, and often with patent disregard of the meaning of the text even by competent philosophic students and the originals of many Buddhist works are lost and we are compelled to rely on Tibetan versions But it is clearly an indispensable preliminary to further progress that some effort should be made to formulate the results attainable with the information now at our disposal

Considerations of space have rendered it necessary to omit all mere philological discussion and all treatment of points of minor philosophic interest On the same ground no effort has been made to trace the vicissitudes of either system in China or Japan or to deal with either Buddhist or Jain logic save where they come into immediate contact with the doctrines of the Nyaya and Vaiçesika

I have given references to the original authorities for any statement of importance but I desire to express a more general debt to the works of V V Athalye S C Vidyabhusana, H Jacobi Ganganatha Jha Th de Stcherbatskoi and L Suali To my wife I am indebted for advice and criticism

A BERRIEDALE KEITH

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A EPISTEMOLOGY

ABBREVIATIONS

AGWG Abhandlungen der königl Gesellschaft der Wissenschaften zu Göttingen

BI Bibliotheca Indica, Calcutta

BP Bhāsāparicchedaḥ, ed and trs E Röer, BI, 1850.

BS Brahma Sutra of Bādarāyaṇa, ed BI

BSS Bombay Sanskrit Series

Colebrooke *Miscellaneous Essays*, ed E B Cowell, London 1873

Deussen P *Allgem Gesch. Allgemeine Geschichte der Philosophie*, I 1–III, Leipzig 1906 8

Garbe, R, *Sāṁkhya. Die Sāṁkhya Philosophie*, Leipzig, 1894 (2nd ed, 1917)

GSAI Giornale della Società Asiatica Italiana

JAOS *Journal of the American Oriental Society*

JASB Journal of the Asiatic Society of Bengal new series

JBRAS Journal of the Bombay Branch of the Royal Asiatic Society

JRAS Journal of the Royal Asiatic Society

KhK Khaṇḍanakhaṇḍakhādya, trs Gaṅgānātha Jha (reprint from Indian Thought)

Kir Kiraṇāvali of Udayana ed with Praśastapāda, Benares, 1885 and 1897

Kus. Kusumāñjali of Udayana, ed and trs E B Cowell, BI, 1864

MBh Mahābhāṣya.

MS Mimānsā Sutra of Jaimini, ed BI

Muller, F Max, *Six Systems. The Six Systems of Indian Philosophy* London, 1899

NA Nyāyāvatāra of Siddhasena Divākara ed and trs S C Vidyabhusana, Calcutta, 1909

NB Nyāyabindu of Dharmakīrti, ed P Peterson BI 1890

NBT Nyāyabindutikā of Dharmottara ed u a

NBh Nyayabhāsya of Vātsyāyana, ed Benares, 1896

NGWG Nachrichten der königl Gesellschaft der Wissenschaften zu Göttingen

NK *Nyayakandali of Çridhara, ed Benares, 1895*

NKoça Nyāyakoça by Bhimacārya Jhalkīkar, BSS xlix, ed 2 1893.

NL *Nyāya Philosophy, Sadhaka Lectures, by Gangānātha Jha (in* Indian Thought)

NM Nyayamanjari of Jayanta, ed Benares, 1895

NS Nyaya Sūtra, ed and trs S C Vidyabhusana, SBH viii, 1909

NSM Nyāyasiddhāntamañjari of Jānakināṭha (in The Pandit, new series)

NSāra Nyāyasara of Bhāsarvajña, ed S. C Vidyābhusana, BI 1910

NV Nyāyavārttika of Uddyotakara, ed BI 1887–1904

NVT Nyāyavārttikatātparyatīka of Vācaspati Miçra, ed Benares, 1898.

NVTP Nyāyavārtikatātparyaparişuddhi of Udayana, ed BI
Oltramare, P *L'histoire des idées theosophiques dans l'Inde*, vol i, Paris, 1907
PBh The Bhāsya of Praçastapāda, ed Benares, 1895
PMS Parīksāmukhasutra of Mānikya Nandin, ed *Bf.*
PMV Parīksāmukhasutralaghuvrtti of Anantavīrya, ed BI.
PP Prakaranapa eikā of Çālikānatha, ed Chowkhambā Sanskrit Series, 1903 4
PSPM The Prābhākara School of Pūrva Mīmāmsa, by Gangānātha Jhā, Allahabad, 1911
ÇD Çāstradīpikā of Pārthasārathi Miçra, ed Tha Pandit
ÇV *Çlokavārttika of Kumārila, trs Gangānātha Jhā, BI*
SAB Sitzungsberichte der königl preussischen Akademie der Wissenschaften zu Berlin
Sugiura, Sadajiro, *Hindu Log Hindu Logic as preserved in China and Japan, Philadelphia, 1900*
SBE Sacred Books of the East, Oxford
SBH Sacred Books of the Hindus, Allahabad
SBNT Six Buddhist Nyāya Tracts in Sanskrit, ed Haraprasād Shāstri, BI 1910
SDS Sarvadarçanāsamgraha of Mādhava, ed Ānandāçrama Sanskrit Series, no 51
ŞDS Şaddarçanasamuccaya of Haribhadra, ed BI
ŞDST Şaddarçanasamuccayatika of Gunabhadra, ed BI
SM Siddhāntamuktāvali, ed with Bf.
SP Saptapadārthī of Çivaditya, ed V S Ghate, Bombay, 1909
SS Sāmkhya Sūtra, ed *Bf*
SSS Sarvasiddhāntasamgraha, attributed to Çankara, Madras 1909
Suali, L, *I tr Introduzione allo studio della filosofia indiana*, Pavia, 1913
TA Tarkāmrta of Jagadīca, ed Calcutta, 1880
TAS Tattvārthādhigama Sutra of Umāsvati, ed BI, trs. H Jacobi, ZDMG lx
TB. Tarkabhāsā of Keçava Miçra, ed S M Paranjape, Poona, 1894
TC Tattvacintāmani of Gangeça ed BI
TK. Tarkakaumudī of Laugāksi Bhāskara, ed M N Dvivedi, BSS xxxii 1886.
TR. Tārkikarakshā of Varada, ed Benares, 1903
TS *Tarkasamgraha of Annam Bhatta*, ed Y. V Athalye, BSS lv, 1897 (preface by M R. Bodas)
TSD *Tarkasamgrahadīpikā, ed u s*
VOJ Vienna Oriental Journal
VS Vaiçesika Sūtra, ed *BI*, trs *SBH* vi 1911
VSU Vaiçesikasūtropaskāra of Çankara Miçra, ed BI
VSV Vaiçesikasutravrtti of Jayanārayana ed *BI*
Vidyābhusana S C, *Med Log History of the Mediaeval School of Indian Logic, Calcutta, 1909*
YS Yoga Sutra of Patañjali, ed BSS xlvi, 1852
ZDMG *Zeitschrift der Deutschen Morgenländischen Gesellschaft*

PART I

THE LITERATURE OF THE NYAYA AND VAIÇESIKA

CHAPTER I

THE ORIGIN AND DEVELOPMENT OF THE SYSTEMS

1 *The Antecedents of Logic and the Atomic Theory*

INDIA incurious even of her varied and chequered political history has neglected even more signally the history of her philosophical achievements Even in the period when discussions between the schools resulted in the production of sketches of the several systems such as those of Haribhadra and Madhava the expositions given attempt no historical treatment of the various systems, but treat them merely from the point of view of their relation to the favourite system of the author whether Jain or Vedanta The earliest works of the Nyaya and Vaiçesika present us with definitely formed schools which presuppose much previous discussion and growth but it is only occasionally that a later commentator like Vatsyayana assures us definitely that another school—doubtless an older one—gave the syllogism ten in place of the traditional five members,[1] or mentions so much divergence of opinion as in the case of the forms

[1] On NS 1 1 32

of inference,[1] as to induce the belief that the variation of view did not merely arise after the production of the Sutra We are reduced therefore to seek outside the schools in the Brahmanical Buddhist and Jain literature for hints of the origin of the logic and atomic theory of the Nyaya and the Vaiçesika

On one point there can be no dispute, the Brahmanas and the Upanisads do not present us with anything which can be said to foreshadow these doctrines The public controversy of the Upanisads may however be noted as a feature which favoured the growth of logic and sophistry, and apart from the great weight allowed to the Veda in general and the Upanisads in particular in the arguments of the two schools it may be pointed out that the doctrine of the place taken in perception by mind is foreshadowed in the Upanisads[2] whence also is derived in a revised form the Nyaya doctrine of sleep.[3] In even the Dharma Sutras which are the latest stratum of the true Vedic writings neither system finds mention and this is the more important in that Nyaya there occurs in its general sense of argument or conclusion and also in Apastamba[4] in the specific sense of the principles of the Purva Mimansa school In it we have the result of reasoning addressed to the determination of the conflicting declarations of Vedic texts regarding the order and mode of performance, the purpose and results of the sacrifice while many of the important sacrifices included in their course discussions by the priests on sacred topics (*brahmodya*)[5] As astronomy geometry philology and other sciences arose in close connexion with the sacrificial ritual so we are entitled to regard the Nyaya as a development of a tendency which is seen in operation first in

[1] NS i 1 6 [2] Pt II ch i § 1 [3] Pt II ch i § 3.
[4] ii 4 8, 13 [5] 14 13 Bühler SBE II² xxv i
[6] Bloomfield *Religion of the Veda* pp 16 ff

the Mimāṅsā school[1] But in the hands of the Pandits[2] who took it up logic was applied to a wider range of interests than the sacrifice, and developed for its own sake. Thus most easily is explained the fact that Nyāya which remains to the end a characteristic term of the Mīmāṅsā is the specific appellation of the Nyāya school, while the Buddhists retain it in the larger sense of inference

In the earlier grammatical literature Panini, Kātyāyana, and Patañjali know the meaning of Nyaya as conclusion, but show *no trace of recognizing* a Nyāya system[3] The great epic however gives us positive evidence of such a system apart from other references,[4] the sage Narada is described as skilled in Nyaya able to distinguish unity and plurality conjunction and inherence, priority and posteriority deciding matters by means of proof, and a judge of the merits and demerits of a five-membered proposition[5] The mention of inherence shows plainly that the Vaiçeṣika is also recognized, though its name does not occur and sophistry is denounced in several passages But the mention of Nyaya here and in the Purānas[6] is useless for purposes of dating, none of the references need be earlier than the appearance of the schools though the omission of Kanāda's name is worth noting The Smṛti of Yājñavalkya also which mentions Nyaya with Mimansā as a science,[7] is not earlier than the third century A D

More interest attaches to the term Ānvīkṣikī as a name

[1] Bodas, TS, pp 27-9 'Inference' occurs in TĀ i 2

[2] Jacobi, SAB 1911, p 732

[3] *Goldstucker (Panini, p 157) holds otherwise of the two last, but without plausibility*

[4] Hopkins, *Great Epic of India*, pp 97 ff SBH VIII xv ff

[5] II 5. 3 5

[6] Mbh I 70 42, XII 210 23, *Matsya P*, III 2 &c

[7] I 3

would account for its sharp opposition to the Vedic science, and that at an early period it was applied also to sacred things and fusing with the Nyaya developed from the Mimansa produced the Nyaya as a logical school This may account for the extent to which logic seems to have disengaged itself from the Mimaṅsa

A final hint of the date of the schools is suggested by the fact that Caraka in his medical Samhita[1] gives a sketch of some of the Nyaya principles not without variation in detail and of the Vaiçesika categories in such a way as to indicate that he regarded the systems as supplementing each other Unhappily however not only is Caraka's date uncertain but his work has suffered refashioning and the authenticity of the text cannot be admitted Nor can any stress be laid on the variations from the Nyaya school[2] an unscientific exposition of this kind need reflect nothing more than the lack of knowledge of its author and sheds no light on the early history of the school

The literature of Buddhism gives little aid the Buddhist doctrine of perception in its developed form has affinity with the Nyaya but no derivation suggests itself either follows a line of thought already foreshadowed in the Upanisads[3] The old Pali texts[4] ignore the names Nyaya or Vaiçesika in the *Brahmajalasutta* we hear in lieu of them only of *takki* sophist and *vimansi* casuist and in the *Udana takkikas* appear as in the epic and Puranas The silence is of importance still more so the fact that in the *Katthavatthuppakarana* which does not claim to a greater antiquity than Açoka's alleged Council about 255 B C., we find no reference to either school and nothing more significant than the use of the terms *patinna*

[1] S 24[3]f 1 1 43 ff [2] SAB 1911 p 736 n 1
[3] Rhys Davids *Buddh Psych* pp 68 ff
[4] Vidyabhusana *Med Log* pp 61 ff

proposition *upanaya* application of a reason' and *niggaha* humiliation' which later in Gautama's logic are technical terms but which at this period have their more general sense It is in keeping with this that the Nyaya under the name Niti and the Vaiçesika first appear in the *Milindapanha* but unhappily the date of that text is wholly uncertain as in its present form the work represents an elaborated version of a simpler original and references of an incidental kind such as this could easily be added[1] Of more precision is the Buddhist tradition[2] which asserts that Vaiçesika adherents were alive at the time of the Buddhist Council of Kaniska which may be placed at the end of the first century A D But here again we have no assurance of the value of this tradition for all regarding Kaniska's Council if it were held is fabulous and confused

The Jains texts yield a little more Their tradition preserved in a late text the *Avaçyaka* in a possibly interpolated passage and in late prose versions attributes the Vaiçesika system to a Jain schismatic 544 years after Vardhamana Rohagutta of the Chaulu family whence the system is styled Chaluga The summary of principles given is clearly Vaiçesika of the Kanada type nine substances seventeen qualities five forms of motion, particularity and inherence with however three forms of generality somewhat obscurely phrased Here again however the date of the *Avaçyaka* not to mention this passage is unknown but doubtless late and not the slightest faith can be put in the claim that the Vaiçesika was an offshoot of Jainism nor is any useful purpose served by endeavouring to find in Chaluga a corruption of

1 Cf Winternitz *Gesch d Ind L* II 139 ff
2 *Journ. B ddh Text Soc* 1 1 ff Ui *V P* pp. 33 ff
3 Weber *Ind. Stud*, xvi 351 Leumann xvii 116 n1 SBE XLV xxxv ff Ui pp 35 ff 66 ff

Aulūkya. What is of importance is the question whether in the Jaina system there is evidence of anything which could give rise to the Nyāya or Vaiçesika systems. The Jain system [1], in its view of knowledge, takes the peculiar view that direct knowledge (*pratyaksa*) is that which the soul acquires without external aid such as the senses, it takes the form of direct knowledge of things beyond our perception (*avadhi*) of the minds of others (*manahparyāya*), and complete knowledge (*kevala*). Under indirect knowledge (*parokṣa*) is included direct sense perception (*mati*) and that which is obtained by reasoning (*çruti*). In the *Sthanāñga Sūtra* we find mention made of the usual four means of proof perception inference comparison, and verbal testimony and there are given certain classes of inference, but in view of the uncertain date of this text it is idle to claim priority for the Jain logic, nor, as it appears in such authors as Umasvāti [2] and Siddhasena Divakara,[3] is there anything to suggest that logic was the original possession of the Jains. The more characteristic doctrine of knowledge [4] of that school is summed up in the doctrines of indefiniteness (*syādvāda*) and aspects (*naya*). To the Jains everything is indefinite and changing in point of quality, permanent only in respect of substance and thus to make any true statement about it demands a qualification of anything we can say, 'In a sense it is or is not, or is and is not or is inexpressible, or is or is not and is inexpressible, or both is and is not and is inexpressible'. Similarly the Nayas are modes of regarding reality from different points of view. In all this, which is of dubious date and still more dubious value, it would be vain to find a model for the Nyāya.

[1] Vidyābhūsana *Med. Log.*, pp. 3 ff.
[2] *Tattvārthādhigama Sūtra*, before sixth century A. D., ZDMG lx. 288 ff.
[3] Ayliyeatira c. 533 A. D.
[4] H. L. Jhaveri, *First Principles of Jain Philosophy*, pp. 31 ff.

The case is different with the atomic theory for in this case we do find a definite similarity between the atoms of the Vaiçeşika and those of the Jain In the Jain conception[1] however the atom has taste colour smell two kinds of touch and is a cause of sound though soundless and thus differs from the Vaiçeşika atom which has no connexion with sound and has one two three or four of the ordinary qualities according as it is air fire water or earth The Jain atoms are thus qualitatively alike the Vaiçeşika not. In both cases the atom is thus a relatively complex conception as remarked by Çankara in his refutation of the atomic theory[2] and it is by no means easy to say that the Vaiçeşika conception must have been or even probably was derived from the Jain the fact that the Jain school retained the theory without any substantial development is merely one of many proofs of the metaphysical barrenness of the school Nor is it difficult apart from Jain influence to believe in the development of the doctrine in the school from the natural aim to find something abiding in the flux of phenomena which Buddhists asserted while the Aupaniṣada doctrine offered a permanent abiding reality in the absolute but only at the cost of denying the reality of the finite multitude There was room therefore for a solution which would attain a reality not transcendental as in the case of the Upaniṣads but lying at the basis of the real though momentary or temporary phenomena of the world That this was the line of reasoning which led to the acceptance of the atomic theory appears from the earnestness with which the *Nyāya Sutra* attacks the Buddhist doctrine that there was no substance behind the qualities no whole beside the parts The

[1] J L Jaini *Outlines of Jainism* p 90 SBE xlv 198 209 210
[2] On BS ii 2 15

acceptance of such views led to the disappearance of all solidity in existence and the atomic theory makes good this lack by affording a real basis for the substance we see When it is investigated it does not reduce itself as claimed by the Buddhists to its constituents or qualities but is ultimately a congeries of atoms which are real but in themselves imperceptible[1]

There remains however, the possibility of Greek influence on India in the case of this doctrine It must be admitted that it appears in India at a late date certainly no proof of it exists until India had been in contact with the Greek kingdom of Bactria and the Greek influences which came in with the occupation of territory on the north west by princes of Greek culture In Greece the doctrine was not merely one of a small school the adoption of it by the Epicureans raised it into a widespread belief and it would be irrational to deny that it might easily have been conveyed to India just as Greek astronomy and astrology unquestionably were The nature of such borrowings is often misunderstood, the mere adoption without alteration of an opinion would be wholly un Indian though we know that Greek astronomy was borrowed we find it was recast in an entirely un Greek fashion[2] and so changed and developed were Greek Mathematics that the borrowing has often been ignored[3] It is no argument against borrowing then that the Greek doctrine that the secondary qualities were not inherent in the atoms was not accepted and that the motion of the atoms was

[1] On the general appearance of Jain doctrines as influenced by Vaiçeṣika views cf Bhandarkar *Report for 1883–4* pp. 101 ff A primitive view recognizing the self as well as the five elements appears in the *Sutrakṛtanga* (SBE. XLV xxiv), but this is very far from the Vaiçeṣika The age of Buddhist atomism (Ui pp 76 ff) is very dubious

[2] Thibaut *Pañcasiddhāntikā* pp xviii ff

[3] Kaye *Ind an Mathematics*, pp 8 ff

ascribed as early as Praçastapada at least to a creator On the other hand the most peculiar part of the Indian doctrine which finds that the smallest thing possessing magnitude must be made up of three double atoms and which has therefore been claimed[1] as disproving Greek origin is no original part of the system The problem of origin therefore must remain open for borrowing the chief evidence apart from the obvious similarity of the doctrines in their conception of the unit atom and its imperceptibility is the sudden appearance of the dogma in Indian thought at a period when Greek art had profoundly influenced the art of India and India had long been in contact with the western world, in which the doctrine had passed into a common and popular as opposed to an esoteric doctrine

Of logical doctrine in its early stages there is no reason whatever to suspect a Greek origin the syllogism of Gautama and Kanada alike is obviously of natural growth but of stunted development It is with Dignaga only that the full doctrine of invariable concomitance as the basis of inference in lieu of reasoning by analogy appears and it is not unreasonable to hazard the suggestion that in this case again Greek influence may have been at work. But the possibility of a natural development is not excluded only it must be remembered that perhaps two centuries before Dignaga Aryadeva one of the great figures of Mahayana Buddhism uses terms displaying knowledge of Greek astrology and that by A.D 400 the probable date of Dignaga spiritual intercourse between east and west was obviously easy Nor is it without interest to note that some evidence has been adduced of Aristotelian influence on the dramatic theory of India as preserved in the *Bharata Çastra*[2]

[1] Max Müller *Six Systems* p. 584

[2] M Lindenau, *Festschrift E Windisch* pp. 38–49 On Greek influence on Indian thought also S Lévi *Mahânâma trâla dâra* ii 17 18

substances, earth, water, fire, air, ether, space, and time, Book III treats of the objects of sense, and establishes the existence of the self and the mind, dealing also with the theory of inference, Book IV contains the atomic theory, and discusses the visibility of quality and the nature of body, Book V deals with motion, Book VI with the merit of receiving gifts and the duties of the four stages of life, Book VII mixes up quality, the atomic theory, the self, and inherence, Books VIII and IX are mainly concerned with perception and inference and Book X deals with causality, among other topics.

Of the personalities of Gautama and Kanāda we know absolutely nothing. The personal name of the former Akṣapāda has the appearance[1] of being a nickname such as early India seems to have loved, 'one whose eyes are directed at his feet', but it is variously interpreted[2] and embellished with idle legends. Kanāda,[3] alias Kaṇabhuj or Kaṇabhukṣa, denotes 'atom (of grain) eater', and would naturally be interpreted as a nickname due to his theory; Çridhara,[4] however reports it as due to his habit of living on grains fallen on the road like a pigeon. To Praçastapāda we owe the knowledge that his gentile name was Kaçyapa, and that Çiva revealed in owl (*ulūka*) shape the system to him as a reward for austerity, whence the name Aulukya which the *Nyāya-vārttika*[5] already applies to it. The worthless Purāṇa tradition proceeds to invent Akṣapāda, Kanāda and Ulūka as sons of Vyāsa, while ingenuity, ancient and modern, has invented equally worthless identifications with the Gautama of the *Gautama Dharma Çāstra* and

[1] Garbe, *Beiträge zur indischen Philosophie*, p. 31.
[2] SBH VIII v, vi, NL, pp. 8–10.
[3] That Kaṇāda = crow-eater = owl (*SBE* XLV xxxvii) is an idle fiction.
[4] NK, p. 2. [5] pp. 200–329.
[6] p. 168, Kumārila, *Tantravārttika*, I. 1. 4, cf. Açvaghoṣa (Us, p. 41).

other members of that great clan, based on nothing more secure than the identity of the family name In truth we are left entirely to internal evidence and the history of the texts to discover their date

The first point which may be treated as certain is that both texts were known to Vātsyayana who, as will be seen lived before Dignaga, probably in the second half of the fourth century A D He commented on the *Nyaya Sūtra*, and used the Vaiçesika categories he quotes aphorisms found in Kanada's Sutra[1] and appears to have recognized it as in some degree a kindred school This fact renders specially difficult the second question which presents itself that of the priority of one or other of the two texts It must be recognized at once that there is no possibility of treating the two systems as having grown up apart without mutual influence In favour of the priority of Gautama's work some evidence can be adduced, the *Vaiçesika Sutra* marks in treating of inference a definite attempt to enumerate the real relations which *afford the ground of* and *justify* the infereoce while no attempt of this sort is made in Gautama *again while* the Vaiçesika doctrine of fallacies is different from and simpler than Gautama's Kanāda uses without explanation the term *anaikantika*[2] indeterminate' as the description of a fallacy while Gautama has it in a definition Much more doubtful is a third piece of evidence, Gaotama[3] in proving the self refers to mental phenomena alone as signs of its existence while the Vaiçesika mentions also the physical signs of expiration inspiration winking the vital processes the movement of mind and the activities of the other sense

[1] iii 1 16 in Comm on NS ii 2 34 iv 1 6 in Comm on iii 1 33.
[2] *iii* 1 12 NS *i* 2 *46*
[3] i 1 10, NS iii 2 4 Nāgārjuna Deva, and Harivarman (Ui 1p. 43 ff know a Vaiçesika.

organs The last case seems rather to indicate that the Vaiçesika is the older standing as it does on a less philosophical standpoint This conclusion[1] is supported by the fact that Gautama deals carefully with other points which have less effective treatment in the Vaiçesika, such as the eternity of sound the nature of the self the process of inference and fallacies generally, and the reference to a *pratitantra siddhānta* must be understood—though curiously enough in his comment on this passage Vatsyayana illustrates the relation by the Samkhya and Yoga—as an allusion to the Vaiçesika which Vatsyayana elsewhere accepts in this relation Gautama[2] refers also to the question of the action of a creator (*içvara*) though he leaves the main question unsolved It is difficult therefore to evade the impression that Kanada is the older of the two and that the failure of the Nyaya to accept his classification of the grounds of inference was not due to its being a later product but to its being a part of the Vaiçesika system which the Nyaya rejected The great improvement in the order of the *Nyaya Sutra* is also symptomatic of a later date for the redaction of that system

Further support for this view as well as some vague indication of the period of redaction of the Nyaya may be derived from the patent fact of the polemic carried on in the school against Buddhist doctrines The most important point in this regard is whether the Buddhist views attacked are those of the nihilist Madhyamika school or the idealist Yogaçara school the former of which is connected with the name of Nagarjuna, who has been assigned to the third century A D as his contemporary Aryadeva mentions the days of the week an

[1] The enumeration by *padārtha* is used by Kanada much more rarely than in the Vaiçesika Deussen *Allgem Gesch* I ii 361 362

[2] iv 1 19 21

innovation probably of that period while the latter seems to have been developed in the middle of the fourth century by Asanga and Vasubandhu[1] Gautama[2] clearly refers to the view of Nagarjuna and Aryadeva that the effect before production is neither existent non existent or both, to the doctrine of the former that all things have no real existence possessing merely an illusory interdependence, to the assertion that a substance has no reality independent of its qualities nor the whole apart from its parts to the denial of the doctrine of atoms,[3] and to the belief that means of proof and their objects are no more than a dream or a mirage as well as to less distinctive Buddhist doctrines as the momentary character of existence and the defilements (*kleça*) It is a much more doubtful theory that one passage of the Sutra is directed against the Yogacara doctrine which accepted ideas alone as real for the contents on the whole better fit the Madhyamikas and the most striking evidence[4] in favour of the other view the parallelism between the wording of one aphorism and a passage in the *Lankavatara Sutra*, is not convincing because the Sutra in its present form is not earlier than the sixth century A D as it prophesies the Hun rule of that period[5] and because the doctrine enunciated there can be interpreted equally well as a Madhyamika principle namely that on investigation of any object no substance is found outside its parts or qualities[6]

[1] Jacobi JAOS xxxi 1 ff Keith JRAS 1914 pp 1090 ff

[2] Cf iv 1 48 with *Mādhyamika Sūtra* xxi 20, *Vṛtti* p. 16 iv 1 40 Sūtra xv 6 iv 1 34 3. *Vṛtti* pp. 61 71

[3] iv 2 18 24 31 32 (*Mādh. Sūtra* vii 34 *Vṛtti* p. 102 iii 2 11 iv 1 64 That Nāgārjuna knew NS (Ui p 8) is unlikely

[4] SBE xlviii 133 NS iv 2 26.

[5] Winternitz *Gesch. d. ind. Lit.* II i 243

[6] In this sense it appears in SDS p 12 (erroneously as *Aksapada's*) KKK i 40

'ignorance', and *pratyagātman*, 'individual self' is reminiscent of the *Brahma Sūtra*. Gautama is familiar with the terminology of the *Brahma Sūtra*,[1] and also with that of the *Mīmāṅsā*, which is probably not later than the *Brahma Sūtra*. But to claim that the *Nyāya* or *Vaiçesika* was redacted later than the other two Sūtras is wholly impracticable It is more interesting to note that an early exponent of the Mīmāṅsā seems to have been familiar with the Nyāya terminology.[2] But his date is wholly uncertain, though the fact is important as a sign that the Nyāya early influenced very powerfully the Mīmāṅsā, and received stimulus from it in return

3 *Praçastapāda, Vātsyāyana, and Uddyotakara*

The Bhāṣya[3] of Praçastapāda is undoubtedly the most important work of the Vaiçesika school. It is no commentary in the strictest sense of the term, the aphorisms of Kaṇāda are not cited *in extenso* or by catchword as normal in commentaries. the order of the Sutra is not followed, and careful research reveals at least forty aphorisms which have no place in the Bhāsya apart from the additions which it makes to the doctrine The arrangement of the material is that which is adopted

[1] Cf NS iii 2 11 16 with BS ii 1 24, for Mimansa see NS ii 1 61-7

[2] Cf *Çabarabhāṣya*, p 10, the Vrttikāra is usually identified with Upavarsa, but see JAOS xxxi 17 where Bodhāyana is suggested, Keith, JRAS. 1916, p 370 Arguments in favour of Gautama's date as the fourth century B C on the score of Upavarsa being a contemporary of a Nanda need not seriously be refuted Speculations (e g. *Bhandarkar Comm Vol.*, pp 161 ff.; Deussen, *Allgem. Gesch.*, I iii 388) as to an original Nyāya Sūtra consisting of Book I, or less, lead to no definite result, but the suggestion that Vātsyāyana is responsible for remodelling the Sūtra is wholly unsupported by evidence.

[3] ed Vindhyeçvarī Prasāda Dvivedin, Benares, 1895, with Çridhara's comm., in part only with Udayana's comm, Benares, 1885-97

stapada's indebtedness to Dignaga, a Buddhist logician whose most probable date is about 400 A D, and it would accord well enough with all probability, if Praçastapada were referred to the fifth century Between him and Çaṅkara appears to have intervened a *Rāvaṇabhāsya*,[1] if we can trust an assertion of the commentator Çrīcaraṇa on Çaṅkara's Bhasya but of this work, which may have been a comment on Kaṇāda or on Praçastapāda, we know no more than that in his comment on the *Kiraṇāvalīprakāça* Padmanābha asserts that it was used in Udayana's *Kiraṇāvalī*

Of Vatsyāyana we know, if possible, less than of Praçastapada His commentary, *Nyayabhāsya*,[2] on the *Nyāya Sūtra* is not, like the Bhāsya of Praçastapada an epoch-making text it is based closely upon the Sutra itself, upon which it marks no decided advance *It is clear* that Vātsyayana knew the categories of the Vaiçesika, of which *indeed, he makes use showing already the* tendency of the systems to syncretism But his logical doctrine is still meagre inference is a mysterious thing really argument from analogy, while Praçastapada has a fully developed theory of invariable concomitance as the basis of inference It is inconceivable that conservatism[3] would have induced any writer to ignore the new advance made by Praçastapada, and this normal conclusion receives ample confirmation from the fact that Vatsyayana was severely handled by the Buddhist logician Dignaga, who in all probability was the source

[1] Ibid, p 12 n That Praçastapada had predecessors is obvious and it is from one of these doubtless that Dignaga borrows the passages, cited in *Mysore*, p 170 171 from his *Pramāṇasamuccaya*

[2] ed Benares 1896, BI 1864 5, Wundsch, *Ueber das Nyayabhāṣya*, Leipzig, 1888, trs Ganganatha Jha, *Indian Thought* IV There are clear traces of an earlier commentary, see trs p 4 on There is no evidence of any corruption of his text

[3] Jacobi, NGWG 1901 p 482

of Praçastapada's doctrine It is reasonably safe, therefore to assign Vatsyayana to a period before A D 400 Of his personality we know nothing save that his name was Paksilasvamin

The attacks of Dignaga were replied to by Uddyotakara the illustrator whose family name was Bharadvaja but whose personal name we do not know He himself is silent as to the name of the author against whom his polemic is directed but the omission is supplied by his commentator Vacaspati Miçra and his statement is amply confirmed by what we know of the literary history of India His date can be determined within fairly close limits [1] he cites a *Vadavidhi* and *Vadavidhanatika* which can with certainty be identified with the *Vadanyaya* and *Vadanyayatika* of the Buddhist logicians Dharmakirti (about A D 630) and Vinitadeva respectively and in turn is referred to in fairly clear terms by Dharmakirti in his *Nyayabindu* in which a system of logic based on Dignaga is set out The date thus suggested is confirmed by the fact that Subandhu in his *Vasavadatta* refers to his establishment of the Nyaya evidently against the Buddhist doctrines and Subandhu's work doubtless fell in the seventh century A reference to Çrughna in his *Nyayavarttika* [2] even lends colour to the view that he lived at Thanesar and possibly enjoyed the patronage of the great Harsa (608–48) though tradition places his birthplace at Padmavati, now Narwar in Malwa which a century later was certainly celebrated as a school of logic [3]

[1] Vidyabhusana JRAS 1914 pp 601-6 Keith pp 110° 1103 *contra* Gangānātha JRAS NS 1 441 n

[2] ed BI Calcutta, 1904 trs Gangānātha JRAS *op cit*

[3] About A D 600 was written Candra's *Daçapadārthaçāstra* a Vaiçesika treatise based on Praçastapāda preserved only in a Chinese version of A D 648 and without influence on the school in India (ed trans H U)

CHAPTER II

THE SYNCRETISM OF THE SCHOOLS

1 *Vacaspati Miçra, Bhasarvajna, Udayana and Çridhara*

For practically two centuries after Uddyotakara there is no trace of the literature of the Nyāya until about the middle of the ninth century, there appears the *Nyaya vartikatatparyatika*[1] of Vacaspati Miçra a commentary on Uddyotakara's treatise, the *Nyayasucinibandha* an index to the Sutra of Gautama and the *Nyayasutroddhara*, a brief treatise similar in character Vacaspati was a man of remarkable versatility for he composed commentaries of the first order on Samkhya Yoga Vedanta and Mimansa texts He lived under a king Nrga and was a Brahman of Mithila, his *Nyayasucinibandha* was composed in the year 898 as he tells us himself The only doubt therefore can be as to the era to which this year refers It would be necessary to refer it to the Çaka epoch and equate it with A D 976 if we were compelled to accept the tradition that the *Rājavarttika* to which he alludes in his *Samkhyatattvakaumudi* was a work of or dedicated to Bhoja of Dhara (1018-60), though even then difficulties would arise But the tradition of this authorship is extremely uncertain, and it is certain that the author of the *Apohasiddhi*, a Buddhist logical tract freely uses Vaca

[1] ed Gañgādhara Çastri Tailanga Benares 1898

spati while ignoring Udayana of whom we have the date A D 984 The year 898 may therefore reasonably be referred to the Vikrama era and be equated with A D 841 in which case we must assume that Vacaspati wrote his commentary on Çankara's Bhasya on the *Vedanta Sutra* some years later as Çankara probably flourished in the *first quarter of the ninth century* [1]

Possibly in the earlier part of the tenth century may be placed Bhasarvajña whose *Nyayasara* [2] is a brief compendium of the Nyaya in two chapters It shows however while generally agreeing with Gautama and his commentators independence of view and Buddhist influence Thus the old division of sixteen categories which the Buddhists rejected confining themselves to the topics of the means of proof and knowledge alone is set aside for a division of the whole subject into consideration of perception inference and verbal testimony as means of proof though the greater part of Gautama's logical and dialectical categories are dealt with in conjunction with the question of inference More important is the rejection of comparison as a separate means of proof it is probable that here Vaiçesika influence is visible since the school rejected it *in toto* [3] and Udayana who defends it makes it clear that its part in knowledge is reduced to ascertainment of the direct signification of words without regard to the realities signified Again Bhasarvajña shows a marked Çaiva influence he

[1] See Woods *Yoga Sutra* pp xx xx i Keith JRAS 1908 pp 593 ff

[2] ed BI Calcutta 1910 with Jayasimha Suri's *Nyayatattparyadipika* (fourteenth century) Cf Hall *Bibliography Index* p 76

[3] SSS v 33 recognizes a Vaiçeshika school with three means of proof and so also a Nyāya v 5) Unhappily the attribution of this text to Çankara is not certain indeed probably wrong The 21 fold division of pain (pp 31 35) seems to be borrowed by SP § 61 bfit cf NV p 2 TB p 91 the work is freely used in TR and Kir p 43 cites a Bhasana who may be the Bhūsanakāra freely cited in TR

goes so far as to style the system he expounds a Çaiva system and promises the earnest student who practises concentration the vision of the god himself His work therefore may be assigned with some plausibility to Kashmir, where Çaiva belief was always strong The precise date is possibly indicated if we can believe that the *Nyayabhusana* to which the Buddhist writer Ratnakirti[1] in the tenth century refers is the commentary of that name on the *Nyayasara*, but the evidence is disputed The work is however the subject of a commentary probably written in A D 1252 it is cited by Madhava and it appears established as an authority in Gunaratna's commentary on the *Saddarçanasamuccaya* of Haribhadra, and is, therefore not later than the twelfth century But it stands somewhat apart from the main stream of Nyaya, and it is certainly improbable that it could have been composed after Gangeça's work

Of far greater importance both for the Nyāya and the Vaiçesika is Udayana whose date after many vicissitudes of opinion is definitely fixed at A D 984 by his own statement in the *Lakṣaṇavali*[2] He wrote a commentary on Praçastapada's Bhāṣya the *Kiranavali* and one on Vācaspati Miçra's commentary on Uddyotakara the *Nyayavarttikatatparyaparisuddhi*[4] much more famous is his *Kusumanjali*[5] which is the classic exposition of the proof of the existence of God conducted from the point of view of the Nyāya system but accepting so far as in accordance with that system the view of the Vaiçesika The same theme is sustained in a polemic

[1] SBNT p 11 the editor (p. 8) denies the reference

[2] p. 94

[3] Keith JRAS. 1908, pp 853 ff Small *Intr* pp 61 63 Part of the *Kusumanjali* and the *Lakṣanamali* are included in the Benares ed of Praçastapāda, 1885-97 A *Lakṣanamali* (not the *Lakṣanavali*) is cited in TP, p 19

[4] ed BI, Calcutta 1911

[5] ed BI Calcutta 1864

against the atheism of the Buddhists and the Jains in the *Ātmatattvaviveka*[1] or *Bauddhadhikkāra* and to Udayana doubtless belongs the credit of making theism a principal tenet of the school though we have no reason to suppose him the inventor of the doctrine On the first three of these works we have among others commentaries by Vardhamāna son of the great logician Gangeça and all his treatises and minor works were busily commented on in the Nuddea school In him the tendency of the two schools to merge is strongly marked but he does not attempt a formal synthesis and cannot be deemed strictly a syncretist author

There is much in common between him and Çridhara who wrote as he tells us in A D 991 his commentary *Nyāyakandalī*[2] on Praçastapada's Bhasya and who appears to cite with disapproval an opinion of Udayana[3] Both recognize non existence as a category by itself as opposed to the positive categories both accept the existence of God and both support it by arguments which have not a little in common Yet a third commentator on Praçastapada may be ascribed to this period if we trust the record of Rajaçekhara[4] that Vyomaçiva's *Vyomavatī* came first in the order of comments followed by the *Nyayakandali* the *Kiranavali* and the *Lilāvatī* of Çri vatsacārya. It must be admitted that the order of the *Nyayakandali* and *Kiranavali* seems wrongly stated but that Vyomaçiva preceded Udayana is stated by Vardha māna[5] It is much more doubtful if he is to be identified with Çivaditya author of the syncretist *Saptapadārthi* especially as he recognized three means of proof as against Çivaditya's two

[1] ed BI [2] ed Benares 1895.
[3] Candrakānta *Kusumāñjali* p 19
[4] Peterson *Report for 1884* 6 p 2*2; cf Gunaratna SSAI xx 64 where no order is given and the name is *Vyoma vati*
[5] Kir p. 114 n 3.

Of doubtful date is Jayanta Bhatta author of an exposition of the Sutra, the *Nyayamanjarī*[1], and *Nyayakalikā* whom Gañgeça mentions as one of the old Nyaya school, like Bhasarvajña he appears to have been a native of Kashmir He cites Vacaspati and is cited by Deva Suri (A D 1088-1169)

2 *Gangeça and the Nuddea School*

Probably within two centuries from Udayana and Çivaditya there flourished the famous Gañgeça or Gangeçvara, the author of the *Tattvacintamani*[2] in which the logic of the Nyaya attains its final shape A native according to tradition of Eastern Bengal he must have lived after Udayana whose proof of the existence of God has plainly influenced his treatment of the inference of God and after Çivaditya and Harsa, whom he cites On the other hand one of his commentators Jayadeva is the author of a work the *Pratyakṣaloka* of which a manuscript[3] bears the apparent date of Laksmanasena epoch 159 or probably A D 1278 Jayadeva is also the author of the *Prasannaraghava* a drama of no great merit and it is improbable that his date is later than A D 1200, so that as Jayadeva studied under an uncle of his, Harimiçra, it is not improbable that Gangeça may be referred without great risk of error to A D 1150 1200 His treatise follows the model hitherto only seen in Bhasarvajña of an independent treatise on the Nyaya in which the dialectical portion which forms the main part of the

[1] ed. Benares, 1895 See Keith *Sanskrit Literature*, pp 15 16

[2] ed. BI, Calcutta 1868 1900 cf *J O Calcutta* pp. 611-33.

[3] Mitra *Notices* v 299 300 Candrakanta, *Kusumañjali* pp. 22 ff Vindhyeçvari Prasada TR, pp. 21-4 whose dating is probably wrong resting on the assumption that Bhagiratha Thakkura (alive in A D 1500) was a direct pupil of Jayadeva, which is not necessarily the case. His drama is before A D 1363.

Sūtra is made to yield the place of honour to the systematic treatment in four books of the four means of proof, under inference being included a special treatise on the inference of God. Thus the doctrine of the theory of knowledge is presented in a definitive form freed from intermixture with the miscellany of contents of the Sutra and placed in a position to confront the attacks of the Buddhists and the Jains. So well done also is the task that it proved the last work of outstanding merit in the school: those who followed abandoned the study of the Sutra and the commentaries to devote themselves to the minute discussion of the points which were early raised as to the interpretation of the views of Gangeça and the correctness of his opinions.

The tradition of the *Tattvacintāmaṇi* was carried on by Vardhamana[1] the son of Gangeça whom tradition ascribes to Mithila and who wrote a commentary on his father's work as well as dissertations on other topics and comments on Udayana's three main treatises. Not much later presumably was Harimiçra whose nephew Jayadeva's *Āloka* is a comment on the *Tattvacintāmaṇi*. A pupil of Jayadeva was Ruci-datta, the author of the *Kusumāñjaliprakāçamakaranda*, a commentary on Vardhamāna's comment on the *Kusumāñjali* and other works.[2]

There follows then a clear break in the tradition[3] which legend seeks to fill up by assigning Jayadeva as

[1] Lists of the works of the members of the school are given in Aufrecht's *Catalogus Catalogorum* i 1 L. His comm. *Nyāyaprakāçanibandha* on Udayana's *Nyāyavārttikatātparyapariçuddhi* freely gives his father's views as opposed to Udayana's. He also wrote an independent comm. on the Sutra, *Ind. an Thought* vi. 297 ff. 93.

[2] The assumption to him of a commentary on a work of Raghudeva (*Catalogus* i. 508) is an error. If Jayadeva's date is as taken above.

[3] Candrakānta *Kusumāñjali* pp. 24 ff.; Vindhyeçvarī Prasāda, PBI (1885) pp. 30 ff.; Bodas TS pp. 44 ff.; Sastri *Ind.* pp. 81 f.; Keith

a contemporary of Vasudeva Sarvabhauma author of the *Tattvacintamanyalkhya*, an exposition of Gangeça who may be regarded as the first of the Nuddea (Navadvipa) school of lower Bengal Vasudeva had four famous pupils Caitanya the Vaisnava saint and reformer Krsnananda a great authority on Tantric rites Raghunandana the renowned lawyer and Raghunatha the greatest logician after Gangeça The commentary of the last on the *Tattvacintamani* covers the first two books only, thus dealing with the really philosophical parts of the system In addition to the *Didhiti* Raghunatha was author of *Padarthakhandana*[1] or criticism of the Vaiçesika tenets and other works He had as pupil Mathuranatha a commentator of prodigious fertility both on his master's work and on the *Tattvacintamani* itself Tradition makes him a teacher of Raghudeva and if so he was a contemporary of Harirama Tarkalankara who was certainly the preceptor both of Raghudeva and of Gadadhara to all three authors the school was indebted for many works based on Gangeça and Raghunatha exhibiting a vast mass of perverted ingenuity worthy of the most flourishing days of mediæval scholasticism As Caitanya's dates are known we can safely assign the period of Vasudeva's influence to the beginning of the sixteenth century and with this accords the fact that Mathuranatha is held to have been a contemporary of Jagadiça author of a commentary on the *Didhiti* who certainly lived about A D 1600 On this work of Jagadiça a comment was composed by Çankara Miçra who was a pupil of Raghu

Bodleian Catal Appx pp 3, 4 Vindhyeçvari Prasada (*Khandanoddhara* pp 4 5) asserts that a MS. of the *Khandanakhandakhadyanka* of Çankara Miçra is dated *samvat* 1579 (= A D 1523) This contradicts the references in *Catalogus*, i 6 to commentaries by him on Jagadiça and Gadadhara and a pupil of Raghudeva and is open to doubt

[1] ed as *Padarthatattvanirupana The Pandit* xxiv xxv

deva but who is much more famous as the author of the *Upaskara* a complete commentary on the *Vaiçesika Sutra*[1] the first as yet available for Praçastapada's Bhasya is a restatement rather than commentary The work is however far removed from the original which it interprets often in a manner obviously impossible of acceptance

The reversion to the Sutra as a source of guidance seen in Çankara Miçra who asserts his independence in his work has a curious contemporary parallel in the action of Viçvanatha author of the syncretist work the *Bhasapariccheda* in writing a formal commentary to the Sutra of Gautama[2] The mass of comment had at last it seems wearied the authors and induced them to return to more original sources of knowledge

3 *The Syncretist School*

The fullest development of the tendency to syncretism in the schools is seen in the work of Çivaditya who must be reckoned the earliest of the authorities of the joint school though it may safely be assumed that he was not the first thus to amalgamate the systems in exposition *The Saptapadarthi*[3] is based on the Vaiçesika system in its arrangement and treatment following the order indicated in the fourth aphorism of Kanada's Sutra he enumerates the categories and their subdivisions explains the purpose of the enumeration and

[1] ed BI Calcutta, 1861 with a Vartika by Jayanārāyana a recent commentary is that of Candrakānta Calcutta 1887 An edition by Gangadhara (1868) purports to be based on a *Bhāradvajavrtti* but is clearly unauthentic Faddegon pp. 34 40

[2] Another commentary *Bhāsyacandra* on Vātsyāyana and the Sūtra has been found *Indian Thought* v 379 It is by Ragh Gautama.

[3] ed Rāmacastrī Tailanga Benares 1893 V S Ghate Bombay 1909, trans A Winter ZDMG 1

the nature of supreme felicity which constitutes the end and then gives in detail the exposition of the matter set out in the enumeration On the other hand, he introduces the substance of the Nyaya logic which is included under the quality cognition though he does not expressly set out the Nyaya categories His date is uncertain, he is known to Gangeça,[1] and unlike Udayana who treats non existence as a category opposed in a sense to the six of existence he makes it a seventh category This points to a date after Udayana On the other hand if, as suggested by the colophon of one manuscript—not a strong piece of evidence he is identical with Vyomaçiva author of a comment on Praçastapada he is probably anterior to Udayana who in one place cites a view of a teacher whom Vardhamana identifies with Vyomaçiva and Rajaçekhara mentions Vyomaçivas commentary as prior to Çridharas and Udayanas But identification with Vyomaçiva rests on too slight a basis for serious argument He wrote also the *Lakṣaṇamala* On the *Saptapadarthi* there are many commentaries of which may be mentioned those of Jinavardhana Suri (c A D 1415) Madhava Sarasvati (before A D 1523) and Çesanata (before A D 1608)

Nor less uncertain is the date of Keçava Miçra author of the *Tarkabhasa*[2] His work follows the order of the Nyāya school but he shows the full influence of the Vaiçesika enumerates its categories and is influenced by its doctrine of causation and perception. Moreover his logic is on the same plane as that of Gangeça and he cites Udayana On the other hand his commentator Cinna Bhatta wrote under Harihara brother of Bukka I of Vijayanagara in the first half of the fourteenth century

[1] TC I. 8b, NoM, p. 9 above, p. 32

[2] ed S. M Paranjape, Poona 1894 (2nd ed 1909) trans. Gaṅgā nātha Jhā, *Hindu Thought*, II

and therefore Keçava must fall not later than A D 1300 possibly earlier Of commentaries there are those of Govardhana whose brother wrote in A D 1578 Gauri kanta and Madhavadeva (before A D 1681)

More recent doubtless is the *Tarkakaumudi*[1] of Laugakṣi Bhaskara which is a clear and elegant exposition of the syncretist school, following the Bhasya of Praçastapada The author was son of Mudgala and grandson of the poet Rudra and the only hints we have of his place and time are the facts that he refers to Benares and to a philosopher Çulapani Misra who conceivably may be identified with Çankara Miçra the commentator on the *Vaiçeṣika Sutra* The similarity of his style and manner of treatment to that of Annam Bhatta and Jagadiça render it reasonable to suppose that he was of approximately the same period He wrote also on the Vaiçeṣika and on Mimansa

Jagadiça is of more certain period a pupil of his was alive in A D 1649 and he was pupil of Bhavananda father of Vidyanivasa and grandfather of Viçvanatha who was alive in 1634 so that Jagadiça must have lived about 1600 He was one of the most industrious of the Nuddea school, and his *Tarkamrta*[2] is marked by an innovation in arrangement while he mentions cognition as a quality of the self under the category of quality, he reserves its treatment at large for the end of his treatise thus restoring the topic to a position more in keeping with its true importance Viçvanātha was a younger contemporary his commentary on the *Nyaya Sutra* was composed in A D 1634 His syncretist treatise is the *Bhasapariccheda*[3] in which in 168

[1] ed M N Dvivedi Bombay 1887 trans E Hultzsch ZDMG lxi 763–802

[2] ed Calcutta 1880 trans L Suali Pavia 1903

[3] ed and trans E Röer Calcutta 1850 G Shastri Bakre Bombay 1903 For date see Haraprasād Shastri JASB 1910 pp 811 ff

memorial verses of the most prosaic kind he summarizes the topics of the system, the arrangement is an exposition of the categories and their subdivisions followed by an account of their analogies and differences and then an elaborate description of substance and quality Cognition is treated of as a quality of substance but also by way of supplement in a later part of the text The verses are explained in the author's own commentary the *Siddhāntamuktāvali* Both works are distinguished by the comparative clearness of their exposition which is based on Raghunātha Çiromani and have formed the subject of many comments

Last but not least is Annam Bhatta whose name like that of his father Tirumala indicates his connexion with the Telugu country His date is uncertain he seems to have used Raghunatha's *Didhiti*, and tradition attributes to him knowledge of Gadadhara whence his date may fairly be placed not before A D 1600 He wrote also on grammar on Vedanta of which his father was a teacher and on Mimansa His syncretist work is the short *Tarkasamgraha*[1] which in eighty one paragraphs sums up the system in the same order as the work of Laugakṣi Bhaskara More important is his own commentary the *Tarkasamgrahadipikā*, which discusses the definitions given in the text amplifies the statement, and occasionally corrects it a sign that it was composed after the issue of the text Important commentaries are Govardhana's *Nyayabodhini*, whose author was apparently different from the commentator on the *Tarkabhāṣā* Kṛṣna Dhurjati's *Siddhantacandrodaya* the *Nilakantha* of Nilakantha who died A D 1840 and his son *Lakṣmanabhaṭṭa's* super-commentary *Bhaskarodayā*.[2]

[1] ed V V Athalye Bombay 1897 trans L Multzsch AKWG phil hist Klasse ix 3 Berlin 1901 [2] ed. Bombay 1903.

Of greater extent and importance is the polemical treatise *Tarkikarakṣa*[1] of Varada Ācārya consisting of memorial verses with a prose commentary (*Sarasaṅgraha*) in three books, in which the order of the Nyaya is followed The date is after Vacaspati Udayana Jayanta and Bhusanakara presumably the commentator on the *Nyayasutra* but before Madhava who uses the work in the *Sarvadarśanasaṃgraha* Nor is there any reference to Harsa (A D twelfth century) whose *Khandanakhandakhadya*[2] is an elaborate refutation from the point of view of sceptical Vedantism of the Nyaya system in the course of which much useful information of its details is given A comparatively early date is also suggested by the fact that the commentator Jñāna purna gives as his teacher Visnusvamin who may be the predecessor of Nimbaditya and if so falls in the eleventh century A D There is also a comment by Mallinatha (fourteenth century)

Of uncertain but not early date is the *Nyayasiddhāntamanjari*[3] of Janakinātha Bhaṭṭacarya Cudamani which in four chapters deals with the means of proof of the Nyaya system and has been commented on freely among others by Laugaksi Bhaskara and Yādava Other treatises both general and on particular points are numerous but do not reveal original thought

From Gangeśa and Jayanta onwards reference is frequently made in the texts to ancient and modern schools.[4] The precise signification of these terms is often in doubt in some cases the distinction is between

[1] ed Benares 1903 for date see A Venis pp i iv a MS of the commentary is dated *saṃvat* 145

[2] ed *The Pandit*; trans. Gangānātha Jha *Khandan Thought* i v i cf Keith JRAS 1916 pp 8 -81

[3] ed with Yādava's commentary in *The Pandit*

[4] Bodas TS p 49 NL pp 19 -0

the Vaiçeṣika and the Nyaya views in others between such authorities as Vatsyayana and Praçastapada in contrast with the Navîna school or even merely between those of Gangeça and of Raghunatha Çiromani and his followers. Uddyotakara already refers to many diverse views held in the school itself, and Jayanta alludes to many opposing views of which traces here and there occur in the later literature as in the *Sarvasiddhānta saṅgraha*

PART II

THE SYSTEM OF THE NYĀYA-VAIÇESIKA

EPISTEMOLOGY

CHAPTER I

KNOWLEDGE AND ERROR

1 *The Nature and Forms of Knowledge*

COGNITION (*buddhi*) in the Nyaya Vaiçesika is essentially a property of the self being described as a quality it differs, therefore, from either the act of understanding or the instrument as which it ranks in the Samkhya school The function of instrument falls on mind which also performs the function of perceiving cognition though it itself is imperceptible Cognition receives in the early texts no serious definition Gautama[1] gives it as synonymous with knowledge (*jnana*) and apprehension (*upalabdhi*), while Praçastapada[2] merely adds another synonym, comprehension (*pratyaya*) Çivaditya's[3] contribution is the definition as 'a light which abides in the self'

A nearer approach to reality is made by Keçava Miçra[4] who gives among other alternatives the suggestion that cognition is what makes things understood Annam

[1] 1. 1 15
[2] § 93
[3] p 171 VSU VIII § 1
[4] p 89 TR p 125 see Laks p. 11

Bhatta [1] describes cognition as the special cause of the utterance of words intended to communicate ideas suggesting the view that cognition is a quality of the self, through which the latter has at once the idea to express and the word to give it utterance This definition, however fails to include the case of indeterminate perception which is equivalent to bare sensation and cannot be expressed in language More complete and fundamental is the other definition given by the same author, which makes cognition the knowledge which forms the content of the consciousness expressed in the phrase I have this consciousness The essence of this aspect of cognition is the recognition of the reference to self, which is implicit in ordinary consciousness From the contact of the external thing and the organ of sense mediated by mind the self has the cognition This is a jar This cognition of a jar (*ghaṭa-jñana*) is therefore a property of the self a fact expressed in the judgement I am possessed of the knowledge of a jar or more simply I know a jar Cognition thus conceived is styled *anuvyavasaya* because it is consequent upon mere consciousness of an object a point in which the Nyâya Vaiçesika departs from both the Samkhya [2] and the Vedanta [3] who do not recognize that the simple consciousness is thus the content of a further consciousness involving reference to the self and give to a single consciousness the duty both of cognition of an object and of cognition In the Samkhya view all is mechanical process without consciousness until enlightenment takes place through the soul which at the same time is

§ 34

[1] NVTP pp. 48 113 17 1 8 TC 1 784 ff On the implication of self consciousness in knowledge cf W Sorley *Moral Values* pp 209 7

[2] Cf SS v 51 Garbe's note Vijñanabhikshu 1 14

[3] KhK 1 109 ff 53 200 203 n 115

revealed[1] In the Vedanta doctrine there is nothing ultimately save knowledge which reveals itself and this also is the position of the Vijnanavada or Idealist school of Buddhism though it differs *fundamentally from the* Vedanta in denying the existence of a single intelligent abiding principle and admits only a series of impressions which in some way or other must be conceived as giving self consciousness To this view the logicians are entirely opposed they insist on the distinction of the self which knows the cognition and the object cognized and refuse to permit consciousness to play all three parts Thus they differ from the Sautrantika and Vaibhasika schools of Buddhists which accept external reality either as inferred or directly apprehended but unite in one the agent and the cognition itself and agree with the Prabhakara school of Mimansa which however does not accept the principle that mental perception gives knowledge of the self as cognizing but assigns this function to the form of inference classed as presumption the *existence of a cognizing self being essential to explain* the fact of cognition The position of Kumarila is less clear but he seems to have more closely approximated to the Nyaya view while admitting the Vedantic doctrine of the self as consisting of pure consciousness[3]

Knowledge therefore is primarily directed to something not the knower himself who is only apprehended either directly by mental perception as cognizing feeling or willing or as the Vaiçeshika holds inferred as the substrate of these mental acts which it admits unlike

[1] Keith *Sānkhya System* p 90

[2] PSPM pp 20 ff ; cf SSS. viii 7 8 Cognition is self cognized but as such not as object Keith *Karma Mīmāmsā* pp 50 90 68–71

[3] PSPM pp 97 ff cf Keith JRAS 1916 pp. 374 ÇV pp 383 408

Prabhakara to be the objects of mental perception [1] Knowledge whether true *(yathartha)* [2] or false *(ayathartha) prama* or *aprama* in the Vaiçesika terminology is a representation of reality In each judgement there is an object of knowledge *(viçesya)* which possesses in reality certain attributes *(viçesana)* this attribute is represented in the judgement by a characteristic *(prakara)* which if the judgement is to be true, must correspond to the attribute as it really exists The judgement This is a flower asserts that a portion of reality presented to us has certain attributes which are summed up in the characteristic of being a flower This flower is blue does not differ [3] in any essential from such a judgement both being equally analytic and synthetic in both reality presented is accorded a characteristic which ought to correspond to the real attributes of the object Correct apprehension may therefore briefly be described [4] as that which attributes to an object with a certain attribute the corresponding [5] characteristic *(tadvati tatprakaraka)* while false apprehension is one which ascribes a characteristic to a thing which has *not* the corresponding attribute *(tadabhavavati tatprakarakam jnanam)* [6]

This is a perfectly definite if difficult theory of judgement and it is defended with energy against opposing views To Prabhakara consciousness not involving memory alone gives true knowledge [7] in the view of

[1] Below ch ix § 1

[2] NBh p 2 SP § 140 TB p 89 NVTP p 168

[3] As suggested by Sual *Intr* p 2 8

[4] NSara p 1 Kus i 1 TA. p 1[0] TR pp 8 11 TS § 30 NSM pp 5 ff.

[5] How correspondence exists is unanswered realism ignoring here the problem cf Pringle Pattison *The Idea of God* pp 110 30

[6] TC i 401 ff PBh p 1[0]7

[7] PSPM pp[0]19 21 [0]8, 29 PP p 4 Kus iv 1 ff TR, pp 19 39 NVTP pp 151 15[0] SS v 53 *Bhandarkar Commemoration Volume* pp 167 70

Kumarila [1] a means of proof is that which determines as such a thing not previously experienced To these views the Nyaya has the obvious objection that in any judgement which is articulate there must be recognition which involves memory but the Mimaṁsa answer is that cognition essentially consists in the production of a quality of cognizedness (*jnatata*) in the object which then becomes the object of perception as e g This jar is known and that this quality is generated on each occasion To this the Nyaya reply is that cognition has no special form but is rather a potency which receives in each case its special character from the attribute abiding in the object Cognition must not be regarded as transforming what it cognizes to be cognized is no quality of the object but a relation *sui generis* (*svarupa sambandha*) existing between the object and cognition The Mimaṁsa doctrine of the grounds of validity of ideas is also criticized The most advanced form of the doctrines is that of Prabhakara who maintains flatly the truth of every cognition as such as is indicated by the fact that the water we actually see and the water seen in a mirage produce similar tendencies to action on the part of the percipient All direct apprehension is valid indirect apprehension due to memory introduces invalidity When a piece of shell is mistaken for silver the process is due to memory which through properties common to the shell and silver produces recollection of silver not differentiated as it should be with the mark of its past character So also memory accounts for the apparent seeing in dreams of non existing things In other cases where there is apparent error it does not lie in the cognition The man whose vision *is defective sees two moons the images not* being fused in one as usual, the man who sees the whit

[1] PSPM pp. 91–5 99 31 ÇV pp 28 ff ÇD pp 15 30 TP pp 39–54, SDS. pp 106 107 BP 135

conch as yellow fuses the perception of the conch with the yellowness of the bile which prevents his eyes seeing true. Kumarila is equally clear that the cognition is really true, what is in any case corrected is not the cognition but what is cognized giving the doctrine of the self evidence (*svatah prāmāṇya*) of cognitions subject to external invalidation The two forms of such invalidation are discovery by other means of the real character of the object and discovery of defects in the instruments of cognition such as bile in the eyes Though the older Nyāya[1] tradition is not so emphatic on the subject as the later it is claimed by both that the self evidence of cognitions is unsustainable[2] The truth of a cognition must be established by an inference, ultimately by an appeal to facts. If every cognition carried with it its validity it would be impossible for us to feel as we unquestionably do doubt In point of fact the real process is that on the judgement This is a horse there arises the further judgement I see a horse and its validity is proved by actually handling the object Similarly a cognition of water is held valid only because we have been accustomed to verify it by drinking the water and come to hold its truth without verification in each case but subject always to such verification The true nature of false cognition therefore does not lie in any confusion of what is perceived and what is remembered through some defects of the organs of perception we apprehend something incorrectly, and then *ab extra* correct not our cognition, which was as accurate as its mode of production permitted, but the result of the cognition, the silver which we believed we saw is replaced by the shell we really had

[1] NM, p. 471

[2] TC 1 193 ff NM, l c, TA, p. 16, TB pp 5 ff, TK, p. 18 TSD § 63 BI 136 NV pp 3, 4, NVT, pp 3 4 NVTP, pp 47 61 93–102

before us Error thus lies not as in the Mimansa view in non apprehension (*a khyati*)[1] whether of the thing or of difference between what is seen and what is remembered but in misapprehension (*anyathā khyāti*)[2] The divergence of view between the two schools as to the self evidence of cognition was of the greater interest to either as the Mimansa view allowed its supporters to maintain the self evident truth of the uncreated Veda while the Nyaya maintained that the authority of the Veda must rest on its production by an omniscient creator

The Nyaya refuted also the Sautrantika Buddhist view which following Dharmakirti[3] regards a means of proof as that which determines an object Thus it is argued cannot be sense for the eye gives us diverse colours, but must be the form (*ākāra*) of the object which cognized affects cognition with its specific character and thus determines the object Similarity with the object is thus declared to be the means of proof since only by reason of it apprehension of anything takes place[4] Thus view also is rejected the form can be nothing but the idea and the idea can neither produce nor make known nor determine itself it cannot act on itself to create itself it cannot make itself known in view of its very nature nor can it give rise to a judgement 'I know this as black' based on itself as This is black, for in a cognition which is self illuminating like that assumed by the Sautrantika these two sides are inseparably connected At best the idea could only be deemed a means of proof by virtue of its pointing to the external reality whence

[1] NL pp 61 3 NVT pp 55 ff NVTP pp 417 ff KKK i 244 NSM comm. pp 69 ff

[2] TC i 430 ff NM pp 180 3 KKK i 141 145

[3] NB p 103 is reproduced NVTP pp 152 153 cf IRAS. 191 p 135 n 4 *Madh vrtt* p 71

[4] NVT p 15 NVTP pp 102 4 1 7 80

it is derived and the use of language forbids us to regard as a proof a thing which does not produce even if like the supposed form it determines in this sense true knowledge It is obvious also that in the Sautrantika view the Nyaya criterion of truth conformity with external reality disappears and nothing is left but ideas whence the mere existence of an outer reality is inferred as an explanation of their existence but not of their specific forms[1]

Still less does the Nyaya accord with the purely idealist theory of Buddhism which regards ideas as the sole reality and finds that there is identity between cognizer cognition and its object externality thus is due to an error which causes what is really part of an internal series of cognitions to be regarded as something external (*atma khyati*)[2] The Nyaya naturally objects strongly to a theory which deprives the external world of all reality they insist moreover that if all is but idea it would be impossible to have such judgements as This is blue since the judgement would necessarily take the form I am blue which is absurd It is not denied that there may be confusion of what is external and what is merely internal in individual cases but that is simply a special instance of the general doctrine of error as misapprehension accepted by the Nyaya Still more objectionable if possible is the nihilist doctrine of the Madhyamikas according to which all apprehension is of the non existence (*asat khyati*)[3] and is itself non existence a view based on the allegation of the incompatibility of all notions

On the other hand the Buddhist schools have strong arguments to urge against the Nyaya doctrine of know

Below ch ¶ § 1 *ch* II § °

[1] NVT p 54 NVTP pp 409 12 VPS 1 85 ff

[3] NVT p 53 NVTP pp 412 413 TKK i 141 i 189 240

ledge[1] Perception plainly rests largely on recognition which alone makes it articulate, but is recognition valid? Sense is sense and impression impression, how can they fuse to produce a whole or give testimony to the continued existence of a substance in time? Assuming that there is a fusion what is perceived can only be either a pure case of remembrance if it refers to the past or imagination if it refers to the future or of present apprehension for, as the previous cognition is past, it cannot be possible to apprehend a thing as qualified by a previous cognition To this argumentation the Nyaya reply is simple the sense organ as affected by the impression is ample to produce the result, when in eating fruits we come to our hundredth we recognize it as such by reason of those we have consumed already, the past is gone but the relation with the past is real Recognition gives us knowledge of present objects as qualified by the past or, if we prefer as qualified by previous cognitions of themselves

In the *Nyaya Sutra*[2] itself a determined effort is made to meet the Buddhist argument that correct knowledge was impossible of attainment by reason of the impossibility of any of the three possible time relations (*traikālya*) between means of proof and its object Thus if perception precedes colour, it cannot be as held by the Sutra, due to the contact of sense organ and object, if it follows on colour, then you cannot say that perception as means of proof establishes colour, if simultaneous then we would have at one moment two cognitions which is impossible on the Nyaya view, and similar arguments can be applied to the other means of proof The reply given is that, if there are no means of proof you cannot prove that fact The difficulty of time is

[1] NM, pp 448 ff, TC. I. 839 ff, cf VPS. i 177-81 KKK. i 166 ff demolishes all the proofs of Nyāya, NSM, p 12

[2] ii 1 8 19 Cf NSāra pp 20 21, Nāgārjuna in Us p 80

not real, there are in fact diverse relations, thus a drum precedes its sound illumination succeeds the sun and smoke and fire are contemporaneous, and so with means of proof and what is proved An object of proof is weighed as it were in the balance of means of proof, and so with the means itself If it is objected that, as each means of proof has to be established by another means then the object will need a series of means of proof and not one only, or, if means of proof establish themselves then why not the object of proof? the reply is that means of proof are established like the illumination of a lamp, an expression which suggests that to Gautama perception and other means of proof proved themselves

Another difficulty as to knowledge presents itself from the Nyaya view of its transitory character,[1] which is proved by the fact that recollection is only possible because knowledge does not last, but is a constant series of cognitions If so, how can things be known distinctly for there is no clear perception of colour in the lightning flash? The example, it is replied does illustrate the truth of the Nyaya proposition, we have only a hasty vision of the lightning and so an imperfect perception but a clear perception is attainable when there is continuity of momentary impressions as in the case of the rays of a lamp which themselves are transitory, but of which by the continuity of the experience we obtain clear knowledge The answer is ingenious for the Nyāya doctrine of the transient character of cognition had obviously dangerous affinities to the Buddhist doctrine of the momentary character of cognitions and their falsity

On the other hand, the Nyāya[2] equally rejects the

[1] iii. 2. 45–6 Cf the difficulty as to the possibility of *anuvyavasaya* discussed TC i 804 ff., *below*, ch vii, § 5

[2] iii. 2 1 10, cf Kumarila, ÇV, pp 382 408, SS i 145, NBh, NV, NVT, i 1 15

permits of the apprehension by the internal organ of the self as modified by that organ and empirically existent, thus in some degree aiding the Nyaya contention The Jain[1] view again recognizes the distinction of cognizer, cognition and cognized, but tends to accept the Mimānsa view of the self evidence of cognitions It is possible as we have seen, that this was Gautama's own view, for his commentators[2] are driven to argue that the *regressus ad infinitum* of the proof of perception, &c, by other means of proof is evaded by the fact when being proved a means of proof ceases to be such and becomes an object of proof The more fruitful conception of truth as a system was evidently impossible for them as rigid realists Knowledge for them is rendered possible by the reality of generality and particularity whose simultaneous presence in perception[3] lies at the root of all judgement and inference

2 *The Forms of Knowledge and Proof*

Cognition is variously divided in the texts of the schools Praçastapada[4] adopts as the *principium divisionis* the distinction between true knowledge and false knowledge the former is subdivided into four categories (1) perception subdivided as omniscient which is possessed only by a divine intelligence and non omniscient which is appropriate to man and manifests itself as indeterminate or determinate, (2) inferred knowledge (3) remembrance, and (4) the insight of seers (*ārsa*) which is a peculiar form of perception possessed by these adepts alone In the accepted doctrine of the syncretist school[5] which follows the Nyaya tradition cognition is

[1] Siddhasena NA 9 with commentary
[2] NBh, NV, NVT., II 1 19 TC I 278 ff
[3] Criticized in *Advaitasiddhi* trans, pp 93 ff
[4] pp 172 ff [5] Cf NS I 1 3 ff

divided into the two great heads of apprehension (*anubhava*) and remembrance (*smṛti*) The former is then divided into (1) perception (*pratyakṣa*), (2) inferred knowledge (*anumiti*), (3) analogical judgement (*upamiti*), and (4) verbal knowledge (*çābda*) The latter has no distinct species though the question is raised and decided in the negative of the inclusion in it of recognition (*pratyabhijñā*) Of perception there are two distinct kinds that of God which is omniscient and eternal and that of man which is transient and which may either be true or false The other kinds of knowledge are proper to man as opposed to God and admit therefore of truth and falsity In the case of perception there is recognized also for man an essential difference between indeterminate and determinate perception in the former of which man comes into direct contact with the world of reality without him This division of forms of knowledge covers the whole field axioms in so far as they receive any recognition in the system fall under transcendental perception, which is a special form of determinate perception and belief is included under verbal knowledge

The four kinds of apprehension are ascribed to four kinds of means of proof (*pramana*) by Annam Bhatta, as by Gangeça making explicit a relationship which does not so explicitly appear in Gautama The term *pramana*, however is not without ambiguity By Vatsyayana[1] it is defined merely as an instrument of knowledge, that by which the knowing subject knows the object' The ambiguity left by this definition which is applicable in a purely psychological sense, is cleared up in the definition of Çivaditya[2] which ascribes to a *pramana* association with true knowledge (*prama*)

[1] NBh 1 1 [2] SP, § 144, TC 1 401 ff

a view which brings out at once the fact that a *pramana* produces knowledge and that if it is to deserve its name that knowledge must be true i e in accord with reality Annam Bhatta[1] and Keçava Miçra[2] recognize that the logical implication is as necessary as the psychological and Madhava[3] gives a fuller definition which emphasizes this and other features necessary in a true *pramana*. Means of proof in this view is that which is always accompanied by true knowledge and at the same time is not disjoined from the appropriate organs or from the seat of consciousness i e the soul The expression accompanied (*vyapta*) which here takes the place of cause (*karana*) in describing the relation of *pramana* to *prama* is used to convey the fact that the means of proof does not merely produce knowledge but assures its correctness while the addition to the definition makes it clear that means of proof is different from the self the mind or the organs of sense though all these have their parts to play in mental activity The true sense of *pramāna* thus appears not as a mere instrument of proof but the mode in which the instrument is used the process by which the knowledge appropriate to each means of proof is arrived at The definition of Madhava has in his view the further recommendation that it includes implicitly the doctrine of the Nyāya[4] that God is the fountainhead of all true knowledge since God is the seat of all knowledge and is ever conjoined with it

As all truth depends on agreement of knowledge and reality each of the modes of proof must conform to this test in the mode appropriate to it In the technical phraseology of the Nyaya this doctrine takes the form that each cognition is true in virtue of a quality (*guna*)

[1] TS § 34 Cf NSara, p 1 TR p 8 [2] pp 8 9
[3] SDS p 92
[4] Ns ii 1 69 Kus iv 5 6 TR pi 11 12 58 NVTP p 2

which it possesses and is false in virtue of a defect (*doṣa*), or more simply a cognition is true or false as it fulfils or fails to fulfil some requisite Thus a perception is true if the object really possesses the attributes which correspond to the notion expressed in the judgement of perception, an inference if the process of inferring is busied about a subject which really possesses the qualities which in the conclusion are inferred of it a comparison if the similarity is rightly apprehended as existing, and verbal knowledge if the compatibility of the words heard is known These conditions are defeated by such conditions as in the case of vision bile in the eye or excessive distance or in the case of inference by logical errors of any kind

There is, however a serious divergence of view between the Nyaya and the Vaiçeṣika regarding the number of means of proof The syncretist school with the exception of Çivaditya follow the Nyāya[1] and accept four perception which inconveniently enough bears the same name as the resulting knowledge though *saṁsaṭhara* is occasionally used for the latter inference (*anumana* as distinct from *anumiti*) comparison (*upamāna* as opposed to *upamiti*) and word or verbal testimony (*çabda* as opposed to *çabda*) From the normal Nyaya list there is however a departure in the case of Bhasarvajna by whom comparison is included under word the means of proof thus being reduced to three while the Vaiçeṣika refuses to accept the separate validity of comparison and word which they reduce to inference The Buddhists likewise accept in a sense perception and inference as proofs while the Jains in one school divided means of proof into direct and indirect and included perception under the first inference and

[1] TC i 503 iv [2] 860-6 TR pp 55 56 Some Vaiçeṣikas allowed verbal testimony SSS v 83 Vyomaç va GSAI xx 63

word under the second[1] The same three were adopted by the Samkhya[2] the Yoga[3] and in part by the Vedanta though in the strict sense revealed truth alone exists for the Vedanta The Mimansa and the normal Vedanta view accept in addition to the four of the Nyaya intuition or presumption (*arthapatti*) and save Prabhakara also non perception (*anupalabdhi*) The latter in the Nyaya view in only an accessory condition of the direct perception of non existence,[4] while the former is reduced to a form of inference The number was raised to eight by the Paurānikas who included tradition (*aitihya*) and equivalence or inclusion (*sambhava*) among the means of proof the former the Nyāya naturally reduced to word while the latter falls under inference A ninth gesture (*ceṣṭā*) added by the Tantrikas falls under word and elimination (*pariçeṣa*) which some Mimansa authorities made a separate proof is plainly part of inference On the other hand the Carvaka school reduced to perception alone understood in the narrowest sense the means of proof a doctrine which they had to establish unhappily for themselves by inference while like the materialism which it accompanied it was entirely opposed to the whole system of the Nyaya[7]

Remembrance as a rule lies outside the field of the

Vidyabhusana *Hist Log* p 10 ff 86 ff NL p 108 109

[2] Keith *Sāṁkhya System* p

[3] Deussen *Vedānta* ch v NL pp 11 118 P Tuxen *Yoga* pp 106 ff

[4] *Abhāva* is given in NS ii 7 1 as included in perception cf Kusum 10 and commentary PSPM pp 73 3 contr ÇV pp 245 ff *NBh* NV and NVT do not differ from NS but see NV p 33

[5] NS ii 1 6 PB p 2 3

[6] NS i 2 cf for all these VSU ix 5 NSara p 30 8 4 TR pp 96 118 SS i 88 PBh pp 225 230 no reversion *sambhava* is probably *Padacandramālā* pp 19 20

[7] SDS *cf* i *contra NM* pp 36 64

operation of the means of proof Laugakṣi Bhaskara[1] alone frames his definition of means of proof so as to cover *remembrance*.[2] *The reason for the omission is* clear remembrance itself has no independent value being based on previous experience and the normal opinion is satisfied with referring its character as true or false to the original whence it is derived There is the obvious difficulty moreover that a remembrance may be hard to verify as compared with the original impression if time has elapsed or the subject of the experience has gone to another place It is obvious however that the mere reference for their truth or falsity of remembrances to the sources whence they were derived is not completely satisfactory if the original impression were correct there may be forgetfulness in whole or part but the nature and condition of such errors are not the subject of investigation Remembrance is traced to an impression (*saṃskāra buddhi-janya*) produced by experience which must be regarded as in some manner a mental operation (*vṛtti-rūpa*) which functions until it results in remembrance when an idea is recalled by an apprehension which awakens it (*uddbodhaka*) by relations of various kinds[3]

As the product of an abiding impression alone[4] remembrance differs from recognition (*pratyabhijñā*) which is also in part due to an impression but has as its immediate cause the presence to perception of some object of previous experience recognition thus being due to sense accompanied by an impression produced by a previous apprehension[5] Or from another point of view the cause

1 7 contra t 1 iv 1 1 cf TP p 19 ff NVTP p 445 &c

2 NK p 57 already recalls the position of PBh pp 172 186

3 NS 2 43 44 VS ix 9 6 PBh p 206 below ch ix § 1

4 TS § 34

5 TB p. 109 cf NBh pp 1 178 NV p 68 ff NSāra pp. 37

of recognition is the knowledge of the identity of the new and old experiences rather than an intermediate process of remembrance, or, as Çivāditya has it, recognition is the perception of an object qualified by the idea of being past The importance of the part played by memory, however, is not denied, and in the developed doctrine of determinate perception some recognition is given to the part played by memory in our actual concrete perceptions.

Apart from its character as knowledge, cognition is of vital importance from the standpoint of the interests of man. Taking the traditional fourfold division [1] we have that which is to be avoided (*heya*), that is pain and its sources, ignorance, desire, merit, and demerit, that which destroys pain (*hāna*), the knowledge of truth, that which brings this about, the science, and the final end, the removal of pain, and of these the knowledge of truth, or the instruments which produce that knowledge, ranks highest. Knowledge, we must remember, is not for its own sake alone, Çivāditya [2] recognizes an essential feature of the system when he classifies it, at first sight irrationally, according to its nature as mere recognition, acceptance as attractive (*upadāna*), rejection as painful (*hana*), or treatment as indifferent (*upekṣa*)

3 *The Nature and Forms of Error*

The essence of false knowledge (*aprama*) or error results immediately from the conception of true knowledge it consists in having the knowledge of an object as possessed of attributes, which are not in accord with the real nature of the thing, and it is manifold in kind

266, 267, NM, pp 458 ff, TC i 839 ff; Th, p 6, SP, § 167, CV pp 473, 474, PSPM, pp 19, 20, NS i 11, Raghunātha, PTN, pp. 58, 59, *Padarthamālā*, p 10

[1] NV, p 4 [2] SP, § 37

The mode of division of error, however is much less matter of agreement than that of knowledge though the principles on which a division can be attempted are simple enough and generally recognized Thus false knowledge may be deliberately held and believed in man may have a certainty which is yet untrue and his position constitutes error proper (*bhrama*) Or he may merely be lacking in certainty in which case his condition is that of doubt (*saṁçaya*) Or again his ignorance may be real and involuntary arising from causes which he is unable to control or he may deliberately for his own purposes make a false assumption with a view to a *reductio ad absurdum* (*tarka*) Or again there is the peculiar form of error seen in dreams

In the classification of Praçastapada[1] the division is fourfold possibly not ununinenced by a desire to make the subdivisions of error correspond in number with those of true knowledge which in his system are also somewhat artificially reckoned as four They are doubt error indeterminateness and dream This division which is in essence found in Kanada[2] is retained as it stands by Jagadiça[3] but the other members of the school endeavour to effect a reconciliation between the view of Praçastapada and that of Gautama[4] with whom doubt and *reductio ad absurdum* form two distinct categories The most interesting of the attempts to follow Praça stapada is that of Çivaditya[5] who reduces the subdivisions to two but manages to find a place in them for the others His classification assumes the two classes of doubt and error in the former he includes conjecture (*uha*) and indeterminateness[6] as well as *reductio ad absurdum* in the second he includes dreams Annam

[1] pp 1 2 ff
[2] i 1 23 30
[3] So NSāra pp 1 2
[5] ix 2 10 ff
[6] SP § 3 cf CV p 29
[4] p 1

viruddhanānākoṭikam jñānam) This last definition makes it clear how doubt differs from indeterminate perception which is in reality mere sensation and which therefore lies far behind the stage at which doubt can possibly arise On the other hand doubt in the precise sense of the word differs from conjecture which Çivaditya[1] classes under it in the former case if for instance we see at a distance an indeterminate object which we conclude must either be a man or a pole that is doubt if we advance to the stage at which we decide tentatively and without assurance in favour of it being a man conjecture is reached Indeterminateness which Çivaditya makes another subdivision of doubt is exemplified by the uncertainty which one may have regarding the precise species of a tree it is therefore a modified and limited form of doubt

The various causes which can give rise to doubt are variously given by Madhava[2] Viçvanātha and Keçava Miçra The most obvious and the stock case is that where the object is seen to possess attributes which are generic in character and therefore may belong to several different things as in the usual example of the object which with outstretched arms or branches seen at a distance may be taken for a tree trunk or a motionless ascetic The alternatives here it is pointed out are really four the thing may be a man or a tree trunk or some

[1] SP § 164 NSāra pp 1 °

[2] SDS pp 9° 93 Cf NS. a 1 23 where percept on and non percept on make up five so NSāra *l c* the number is reduced to three a TR pp 160 8 refut ng NSāra and explain ng NS Cf also NS ii 1 1 7 for a proof of the real ty of doubt NB accepts five classes NV and NVT three NM pp 556 6° five cp PSPM p 3° KKK ii 187 96 Deussen (*Allgem Gesch* I ii 37) suggests that orig nally it referred to two opposing views only PBh pp 174 ff lir des doubt as internal and external criticized by Raghunātha PTN pp 67 91

thing which is not a man yet not a tree or something which is not a tree, yet not a man Or two opinions may be before the subject which he has no means to decide between Or the object may have qualities too ill defined to secure its recognition Or on another interpretation even if the object has a specific quality as the earth has odour, yet one who knows that the quality of odour is quite different from the quality of being eternal or the reverse but does not know the position of the earth in this regard may doubt whether or not the earth is eternal or not

While doubt shares falsity in virtue of the fact that it is the knowledge of an object but only in an indeterminate manner, error is absolutely false as it consists of certainty of the opposite of the truth the object presenting itself with attributes which are repugnant to those which it possesses in reality Thus error is simply equivalent to false knowledge consisting as it does in perceiving an object differently from what it actually is Doubt if the doubter decide in favour of the wrong alternative becomes error but that is only when certainty though in the wrong sense has replaced the former doubt Again error to be such must properly speaking be involuntary due to physical or external causes, apart from the will of him who commits the error Such are the errors which occur in the case of perception through debilities of the organs or circumstances such as excessive distance or too diminutive size which preclude the due functioning of the means of perception.[1]

From error of this type which is involuntary differs entirely the form of error which consists in the *reductio ad absurdum*, and which plays a great part in logic

[1] Cf VS ix • 10 BF 131

being dignified by Gautama with the rank of a category [1] The error involved of course is the false assumption which forms the basis of the reasoning and which essentially differs from real error by reason of its deliberate assumption for the purpose of proving some proposition or of confirming a proof arrived at in some other way From doubt it differs essentially also in doubt there must be several alternatives available the *reductio ad absurdum* is intended to show that some thing must exist in some determined mode or else some absurd result will be obtained

The utility and force of the process may be seen at its best in the stock example which seeks to prove the truth of the conclusion that the mountain is fiery because it has smoke [2] Where this inference is set out when the propounder of the theory has enunciated the proposition and the reason he proceeds to give the general proposition Wherever there is smoke there is fire At this point however he may find that his antagonist will not admit the truth of this proposition and denies the universal concomitance of smoke with fire He then resorts to a *reductio ad absurdum* He asks his adversary whether the mountain is fiery or not if the reply is in the affirmative obviously he need not proceed further as his conclusion is proved If in the negative he proceeds to the proposition If the mountain is not fiery then it cannot be smoky If the adversary will not admit this then he is challenged to produce an instance in which smoke is found in the absence of fire this he cannot do and therefore must admit the truth of the proposition Where there is no

[1] 1 40 NBh pp 65 7 NV pp 161 5

[2] Jacobi NGWG 1901 pp 464 n 2 469 n 1 see TC 1 219-42 TR pp 185 204 NVT pp 41 42 NVTP pp 325-38 KKK ii 206 45

fire there is no smoke From this it follows that as there is no fire on the mountain there can be no smoke a conclusion which manifestly contradicts the truth and drives the adversary to admit his error in opposing the original demonstration In the technical jargon[1] of the schools the procedure of *reductio ad absurdum* appears as the admission of the concomitant (*vyapaka*) i e in the supposed case the non existence of smoke as a consequence of having admitted that of which it is the concomitant (*vyāpya*) i e the non existence of fire The propriety of classing *reductio ad absurdum* as error lies technically in the conclusion which is reached by the process and which is palpably false The account given by Gautama is simpler *reductio ad absurdum* appears as an investigation regarding an object whose nature is unknown carried on for the purpose of ascertaining that nature and based on the fact that there must be some cause involved As *Vatsyayana*[2] explains the process the knowing subject confronted by an object recognizes that it may possess one or other of two contradictory attributes and finally reaches a conclusion based on causality a view which represents the process as it presents itself to one who is seeking to find for himself the truth while the later texts give the process as used in controversy in order to convict an opponent of error

The older Nyaya—not Gautama or his exponents—admits eleven divisions of the general class *tarka* of these the modern school admit only five the last of which *pramanabadhitārthaprasanga* is *reductio ad absurdum* as just described the other four are properly forms of logical error they are reasoning in a circle (*cakra*) *regressus ad infinitum* (*anavastha*) dilemma (*anyonyāçraya*) and *ignoratio elenchi* (*atmaçraya*)

[1] TS § 64 [2] In NS i 1 40

These and other logical errors whether due to sophistry or incapacity for correct argument, have no real affinity with the process of *reductio ad absurdum* which in effect is a valuable means of proof

The dream state appears with Praçastapada as the fourth form of false knowledge and Keçava Miçra[1] makes the matter more precise by explaining that in the waking state memory may be true or false but that the dream is always false because we erroneously substitute the idea this for that In remembrance in fact we recall an object as past I remember that flower which I saw yesterday In the dream state which is really memory I fall into the delusion that I actually see this flower *which in reality I merely remember* before my eyes.[2]

The exact process of the dream is indicated by Praçastapada[3] and Çankara Miçra developing Kanāda's[4] doctrine that dream arises like remembrance from a previous impression and a special contact between mind and the self Dream knowledge is the apprehension which arises when the senses have ceased to be active and the mind is quiescent It is of three kinds it may be due to the vividness of the impression received in the waking state previous to slumber it may arise from a disorder of the humours wind bile and phlegm, it may be caused as in the Vedanta view by merit or demerit arousing pleasing or terrifying visions quaint details of which the texts give including among the ill omened the spectacle of one's own marriage *From* dream knowledge is distinguished that which inheres in or lies near *to sleep or dream (svapnāntika)*[5] Praça

[1] TB p 89
[2] *Cf* Kumārila, ÇV p 173 VPS i 97 ÇD p 39 PSPM pp 31 87
[3] pp 183 184 [4] x 2 7
[5] x 2 8 *Chatterji Hind Philos* p 161

stapada tells us that this is the cognition which springs up in a dream in the form of the recollection of something actually experienced in the dream state Thus the visions of a dream are accorded power to leave impressions though themselves nothing save impressions of experience a suggestion which might have evoked the idea that the dream was really the expression of a personality other than that dominant in waking life had not any form of panpsychism been abhorrent to the school Other interpretations of the phrase were also current in one view it denotes a prophetic dream in another that dream experience which is felt as actual perception owing to its vivid character

The dream state is possible only in that form of sleep (*nidrā*) in which contact of mind and self is possible though contact between mind and the other sense organs has ceased[1] a condition which Yogins can artificially produce In deep sleep (*susupti*) all contact of mind and self ceases and the self as in Prabhakara's view ceases to have consciousness for which mediation by mind is requisite while on the Vedanta view shared by Kumarila it regains its condition of pure consciousness in which of course no dream is possible[2] The physical possibility of this severance of mind and self rests on the atomic size of the latter and on the view that in deep sleep mind retires to the *puritat* apparently conceived as a fleshy bag near the heart in which in some unexplained way it is severed from the all pervading self This grotesque speculation of the school is due as in the Samkhya and Vedanta which have an analogous doctrine to the influence of the *Bṛhadāranyaka Upaniṣad* which tells us of the departure of something—the soul according to the Vedanta—into the *puritat* in sound sleep

[1] SP § 16 PBh p 208 [2] *NS* IV 1 63 *PSPM*, pp 8 79
[3] Athalye TS pp 143 149 Deussen *Veda* cl xxvi i Garbe *Samkhya* pp 274 ff

CHAPTER II

PERCEPTION

1 *Normal Perception*

In its widest sense perception includes two things which differ in vital respects, the normal or human perception which is transient and the perception of God which is immediate and eternal and which possesses only so much in common with normal perception that *like it it does not depend on any prior knowledge* Man however is not totally devoid of a perception which has in it something analogous to that of the deity though unlike that it is transient and conditioned but his normal perception stands on an entirely different basis bringing him into immediate contact with the world of reality Knowledge which arises from the contact of sense and organ is given by Gautama[1] as the meaning of perception when not subject to error, when not requiring further determination and when definite it reaches the standard of correct knowledge Vatsyayana[2] renders more precise the process of perception the self is united with the mind the mind with the sense the sense *with the object with the result that perception* thus arises In doing so he definitely brings mind into the position of a quasi sense though in that quality it

[1] i 1 4 *avyapadeśyam avyabhicāry avyavasāyātmakam pratyakṣam* for the first epithet see Jacobi JAOS xxxi 20 n 2 The second excludes erroneous *perception e g of water in a mirror of sun rays the third cases* of doubt

[2] NBh i 1 4 NS i 1 *41* NV pp 40 ff

appears neither in Gautama or Kanāda, and the former classes it among the category of objects of knowledge as opposed to instruments of proof Despite however its connexion with the self and the mind in this manner the proximate cause of perception is the sense or more strictly its contact with the object a distinction which permits the classification of the apprehension of pain or pleasure by the mind as perception while excluding from the category other mental processes such as inference in which mind is active but not as the proximate cause

The place of mind in the process of perception is established by a series of proofs[1] The self is all pervading consciousness but experience shows that despite the presence of objects of sense and organs of sense frequently perceptions do not result a state of affairs which can be explained only on the assumption that there is requisite something to establish a special contact between the self and the sense organs with their objects Again the fact that we experience things not all at once but in reality, as analysis shows successively proves the intervention of something between the self and the senses Mind however, has not merely this function of intervention feelings like pleasure and pain are actually experienced just as much as sensations of colour and smell and it is a fair argument from analogy to assume that there must be for their apprehension an instrument comparable with an organ of sense The facts of remembrance[2] point in the same direction if it is argued that feelings thoughts and volitions are directly present in the self it is impossible to explain why they are not always and invariably presented which experience shows not to be the case Mind, therefore, has a double

[1] NS i 1 16 iii 1 24, iii 2 60-3 VS iii 2 1-3 viii 1 23 Śāb pp 83 33, TC i 784 ff Cf Deussen *Phil of Up*, pp 273 ff
[2] NS i [illegible] Jā [illegible] V i 37

function to perform, on the one hand it mediates between the senses and the self, on the other hand it plays the part of internal sense and has as its objects the working of the mind It is interesting to note that feeling and volition are thus ranked on a par with cognitions as the object of internal perception

Further light is thrown on the definition by the discussion in the Sutra[1] of the argument that perception is really inference since when we see a tree we really perceive only a part, the rest being supplied by inference the part serving as mark of the whole. This view is rejected, it is pointed out that admittedly there is perception of a part, and that all perception is not inference but it is further maintained that perception of the whole is real and direct and is verified by our ability to hold and pull the tree or other object as a whole The discussion is then linked to the dispute between Buddhism and the Nyaya on the relation of the whole to its parts the Nyaya maintaining firmly the reality and distinct character of a whole This passage makes it somewhat difficult to be assured of the correctness of the interpretation of the epithet not requiring further determination' in the definition as meaning 'not expressible by words which Vātsyāyana and Uddyotakara give, other commentators the latter tells us interpreted the phrase as excluding inference and indeed a perception which is to be exempt from confusion of objects and to negative doubt seems almost necessarily to involve expressibility in language

The interpretation of the Sutra was early affected by the necessity of bringing it into relation with the important doctrine of Dignaga who from the standpoint of a modified form of idealism, propounded the

[1] II 1 30-6 below ch VII §

definition of perception as free from determination by imagination (*kalapanāpodha*)[1] which Dharmakīrti improved by adding that it must be correct (*abhranta*)[2] As will be seen in dealing with his doctrine of inference, as a logician at any rate, Dignaga, followed by Dharmakīrti,[3] recognizes a perfectly definite distinction between the parts of sensation and imagination or intellect in perception, the former gives us absolute reality in momentary contact but a perception giving name, substance quality, action or class[4] is essentially the product of imagination synthetizing momentary impressions, a view obviously very different from that of the Nyaya with its realism since all that is real in the full sense is the momentary sensation, which is absolutely inexpressible A perception as opposed to a sensation gives the form of the object but that is derived from the intellect not from sensation The distinction thus drawn between sensation and perception with the allocation to the latter of the work of intellect was not accepted by Uddyotakara[5] or by Praçastapada,[6] the argument of the former whose attack on Dignaga is vouched for by Vacaspati being that a consistent sensationalism should be speechless and therefore unable to give the definition suggested

[1] NV pp 44 45 Stcherbatskoi *Muséon* v 162 4, below, ch iii § 2

[2] NVT, p. 102, TR, pp 60 61 *Mādh Vṛtti* pp 69 73 NB, p 103 NBT, pp 4 8 15-20 SDS, p. 18 NSāra commentary pp 84 85 SDS, p 39

[3] In his *Santānāntarasiddhi* (Bibl Buddh xix) he appears as an idealist *sans phrase*, denying the existence of cognizer or cognition but the use of his logical view by Sautrāntikas (NVTP, pp 152 4) and Vaibhāsikas (SDS *l. c.*) who were both realists shows that his logic was compatible with realism, even if ultimately he himself meant to assign the sensation to the *ālayavijñāna* as its source

[4] For the kinds of *kalpanā* cf NV, p 44 NSāra, commentary, *l. c.*, TR., *l. c.*, NM, p 93

[5] NV pp 44 45 [6] p 187, VK, p 190, SDST p 67

[7] NVT, p 102

or to describe perception as impermanent or a source of pain If the terms of the definition mean only that the specific individuality of an object is inexpressible that is true since all things have a general and a specific character, and are expressible in the former aspect only, but this gives no real definition of perception

With Trilocana, a predecessor of Vacaspati of whom we know little else,[1] there seems to have been introduced into the school interpretation of the Sutra the view that we must distinguish between two forms of perception, the first of which gives the bare knowledge of the class character of the object and is styled indeterminate (*a* or *nir- vikalpaka*), while the second in place of giving the bare qualification of the object (*viçesana*) gives the determinate (*savikalpaka*) relation of qualified (*viçesya*) and qualification whether the latter be strictly so called i e something essentially coexistent with the thing qualified or an accident (*upalaksana*) The Sutra must it is held, refer to both the latter depending on the former, which is inexpressible in words, like the cognition of children or those who do not know the correct term for a new experience, and therefore the first is understood by *avyapadeçya*, while the second by *vyavasayatmaka* This doctrine reappears in a classical form in Gangeça[2] who insists that the existence of this abstract or indeterminate perception is known by inference, since, unless it is postulated there is an infinite regress, and we must therefore accept as final a direct perception of the class (substance quality or action), which, however, always becomes concrete by application to the thing perceived, the two forms therefore not constituting distinct species,

[1] See Vâcaspati on 1 1 4 He is cited also on other points in TR pp. 337, 356 (*before Vâcaspati*), *cf on the Sûtra, pp 63 64*

[2] TC, I 809 ff , so TR., p 64, NM p 97 ff , Tk , 1 8, NSM pp 13 14 cf *Padârthadharma-sâra*, 1p 6, 7

on the determinate perception follows the reference to self in the *anuvyavasāya*. At the same time the definition of perception is revised to run 'a cognition which is not brought about by another cognition' a definition[1] intended to meet the objection that the old definition really covered every cognition since organ was interpreted to include mind, that it omitted the divine cognition and introduced the term organ whose extent could be decided only by perception itself. The new definition excludes inference which depends on the perception of the invariable concomitance of the middle and major and of the presence of the middle in the minor; analogy which rests on cognition of similarity; and verbal testimony resting on cognition of the meaning of words; a fact which also explains the primacy given to perception as a means of proof by the Sutra.[2]

Another point of view however appears in Kumarila, the *Nyayasara*[4] and in recent Nyaya[5] doctrine. The Buddhist doctrine of the peculiarity (*svalakṣaṇa*) of the object in indeterminate perception was met on the one hand by the assertion of the Çabdikas that it was the bare name which was thus apprehended, while others, the Vedanta held that it was existence in its abstract form (*sattā*). Views which Jayanta rejects. Kumarila held that sensation set up a condition due to the thing in itself (*svalakṣaṇahetuja*) of observation like that of a new-born child on perceiving reality, in which generality and

[1] TC. i. 50. Mathuranātha (ii. 609) explains this as not inconsistent with God being regarded as the final cause of all knowledge.

[2] NBh. p. 3. NV. pp. 14 ff.

[3] ÇV. pp. 87 ff. v. 112 cited in TP. p. 64. NSiddhi, commentary p. 86. PNPM. pp. 3, 9 a recension rather with TC. PBh. with ÇV.

[4] pp. 3, 4 and 6; the commentary takes the last notion of kinds as applicable to Vaiçeṣika perception only.

[5] TB. pp. 2, 25. TND. §§ 4, 5. SP. §§ 36, 166.

[6] TR. pp. 61, 62. [7] NM. ii. ff.

particularity are latent and which only later developed into determinate cognition and the *Nyayasāra* makes it clear that indeterminate perception gives only the *mere existence (vastusvarupa mātra) of the object* in the recognition that an undefined something exists on which determinate perception is built up But unlike Gangeça the indeterminate form is no mere inference unobserved in practice it can be seen in any case of the acquisition of new knowledge The latest development of this view definitely severs indeterminate perception from all other forms of apprehension at the root of which it lies, and thus approaches the psychological conception of sensation as opposed to perception [1]

The validity of determinate perception is naturally assailed by the Buddhists, who deny that perception can give connexion of an object with a name, or that there is any generality which can be predicated of an individual thing, which is momentary in character The Nyaya with Kumarila refuses to accept these contentions, generality is directly perceived when an individual is apprehended, and can therefore be predicated of the individual, as in Aristotle being is predicable of the individual despite its unique character The giving of a name is certainly not derived from perception and a perfectly clear perception is possible, e g of musical notes, though we cannot name what we see whether from ignorance or forgetfulness But the name can be supplied either on or after perception from memory or instruction, the giving of names is necessary for communication of knowledge and memory, but it is not in itself a source of error Nor is perception merely due

[1] *Nilakantha* on TSD 4 c., Athalye, TS., pp. 219, 220 .

[2] VSU viii 1 2, ÇV, pp 97–116 on generality, pp 291–1, 281 95, 464 8, cf below, ch iii, § 3, NSM, pp 12 ff

[3] Cf Arist, *de Interpr*, 16 a 13

to the activity of memory, in our perception of any individual thing much is due to that source but its distinct individuality and time relation are directly due to perception

2 *The Forms of Perception and their Objects*

The organs of perception are six in number five external those of seeing hearing tasting smelling and touching (a term which includes the temperature sense) and one internal mind and there are various ways in which the contact between the organ and the object which is the prerequisite of perception can take place[1] These are conjunction (*samyoga*) inherence in that which is in conjunction (*samyukta samavaya*) inherence in that which inheres in that which is in conjunction (*samyukta samaveta samavaya*) inherence (*samavaya*) inherence in that which inheres (*samaveta samavaya*), and relation of predicate and subject (*viśeṣaṇa viśeṣyata*) and all that is the object of perception must fall within one or other of these modes of contact The divergence of modes rests on ontological theories the eye for instance as a substance can come into direct conjunction with another substance but only indirectly with e g colour which inheres in that substance and at a further remove with the class concept which inheres in the colour which inheres in the object with which the eye is in conjunction The ear again is a portion of the ether and sound inheres in it and therefore is apprehended by the relation of inherence, while its class concept by the relation of inherence in that which inheres The last class is intended to meet the special case of the perception of inherence and negation

[1] Cf VS vii 1 3 11 NV i 1 4 TC i 5 2 ff TA p 10 TB pp 28–30 TK pp 8 9 TS §§ 43 BP 59 61 NSiv ii 2 3 4 50 SDST 17 NSM pp 6–31

Among the objects of perception the qualities of the self such as cognition pleasure and pain are perceived by the mind and the later Nyaya includes the self itself in that category, while the Vaiçesika accepts the doctrine that the self is only an object of inference[1] Of the other objects, it is agreed that a substance having magnitude can be perceived by sight provided, however that it has a manifest colour[2] the form of contact is literal conjunction the object and the eye being deemed to come into actual effective contact The modern school admits also the power of touch to perceive substance, provided that the substance has in it the quality of touch while Viçvanatha by an unhappy attempt at a compromise between the views makes the power of touch to discern substance conditional on the substance having manifest colour Quality and motion[3] again are perceived by the organs by means of the second form of contact inherence in that which is in conjunction Generality the fourth of the Vaiçesika categories is perceived by the second or the third of the forms of contact according as the generality is that of substance or of a quality or action Particularity, which resides in the atoms is necessarily immune from normal perception

There remain the categories of inherence and non existence both of which the Nyaya holds to be perceptible while the Vaiçesika restricts this power to

[1] II i 1 2 2 18 VIII 1 2 NS ra p 36 TR, pp 119 120 NBh, p. 10 gives direct vision to Yogins only below ch IX § 1

[2] VS IV 1 6, below ch VII § 2 ch VIII § " Light therefore is necessary for visual perception but as affecting the object, not the organ

[3] Prabhakara denies perception PP, pp 78 "9 Kumarila accepts it ÇD, p 50 Deussen's denial (*Allgem Gesch*, I iii 809) that substance is perceived is an error *sight touch and mind see substance* NSM pp 2" ff For the modern doctrine of the sensation of movement, cf Wildon Carr, *Proc. Ar st Soc* 1915 16

non existence and asserts that inherence is a matter of inference In either case the contact of predicate and subject is held to apply a view based on the fact that inherence and non-existence having no autonomous existence can be perceived only as attributes of some object in which they are found In the case of inherence the conception which is confined to the strict Nyaya view [1] is at least simple but the case of non existence [2] presents obvious difficulties As it is not a substance it cannot be known by conjunction as it is not a quality activity or class it cannot inhere in a substance and therefore can be perceived only by its relation to that in which it does not exist The perception of the non existence of a pot on the ground involves accordingly first a contact between the eye and the ground and secondly a peculiar contact between the ground and the absence of the pot This contact may be expressed in two forms either as The ground is possessed of the absence of a pot *(ghatabhavavad bhutalam)* the ground serving as the subject and the absence of the pot as the qualification or as There is the absence of a pot on the ground *(bhutale ghatabhavah asti)* in which case the relations are reversed Thus the sixth form of contact consists of two distinct kinds corresponding to the divergence in the form of proposition in the first case the negation forms the qualification of that which is in contact *(samyuktaviseshanata)* namely the ground with the eye in the second case the negation is to be qualified by that which is in contact *(samyuktaviseshyata)* In

TB p 30 *cf* TC 640 ff NSara pp 3 8[n] *by inference only* TR p 16[n] *b t see* NVT p 70 NV p 34 *by both* PSPM p 89 f NSM p 30

[2] VS x 1₀ 1 6-10 TB pp [99] [70] TK p 9 TS § 44 NSara pp 3 79 80 TR pp 103 16 NVTP pp 464 80 NV p 39 *that t is inferred is the view n* NBh pp [n] 101 NV pp 10 [n] 9 PBh § 329 *n sta tl at inherence s inferable only*

the case of perception of a substance like a pot however there can be no such duality of form of contact, a pot we see in itself but the non existence of a pot can be perceived only in virtue of its relation to the ground and it is in the double form of relation which is possible between the pot and the ground that there lies the reason for the double form of contact possible

Non existence however is not applicable to substance only[1] the last form of contact, though it primarily refers to substance is available to be brought into operation in cases where the positive element is established by any of the other modes of contact thus the non existence of a quality is established by a variety of the relation of subject and predicate applied to the second form of contact and so on

This peculiar mode of contact assumed by the Nyaya is, not unnaturally rejected by the Mimansa which however agrees with the Nyaya in the view that non existence is the object of direct apprehension Contact between an organ and non existence is impossible it is argued because contact must be either conjunction or inherence. Conjunction is possible only between two substances and non-existence is not a substance Inherence signifies inseparable connexion and no one can assert that of an organ and non existence Moreover these conceptions have validity only for the world of existence and should not be applied outside that sphere They assert therefore non perception (*anupalabdhi*) as a special independent means of proof a view which the Nyaya rejects[2] In doing so however it is compelled

[1] As Raghunatha (PTN p 49) holds He also (pp 76 8) claims that *vaiśeṣika* is a special category Cf also *Padārthī vratnam* I pp 7 8.

[2] TC I 673 92 TB pp 52 5 TK pp 17, 18 TSD § 43 Kusu 20 2 NSa 9, pp 33 34, 241 6 TR pp 10 16 PSPM, pp 72 73, NSM, pp. 34-58 *et tra* ÇV, pp 213 59 ÇD pp 60 9 KKK I 355 64 ridicules the Nyāya view

to make concessions and to admit that non perception is an accessory cause of the result The mere vision of the ground does not suggest the absence of a pot it can do so only when there was reason on other grounds to expect the presence there of a pot and, when this expectation is defeated by our failure to see the pot the basis is laid for the peculiar contact which in the Nyaya view is the cause of the perception of non existence But the Nyaya is careful to emphasize that non perception even as a subsidiary means must be restricted to cases where perception is possible thus the merit and demerit of good and evil actions is real in every sense but it is not open to perception and failure to perceive it is no ground for asserting that it does not exist The controversy with the Mimansa thus reduces itself largely to a point of form the Nyâya admitting non perception as a subsidiary while the Mimansa insists that it is the primary, cause of the perception of non existence and that it has the distinctive character of differing from perception inference or other proof

Other difficulties regarding perception are raised and solved in the *Nyaya Sutra* An interesting suggestion of Dignaga that material contact is not the cause of vision is put forward supported by the possibility of distant vision and of the eye seeing things larger and smaller than itself The reply is that contact is effected by a ray from the eye which as possessing neither magnitude nor colour is invisible it is not merely over powered by light for it does not shine in the dark though the ray in the eyes of cats suggests its presence in ours also The obstructions met by sense prove also materiality, if glass mica crystal do not prevent vision it is simply because they are transparent a wall does prevent it.[1] If contact, however is necessary, it is

[1] NS. iii 1 30-50 cf Kir pp 74 6 NK p. 93 NV pp 35-8

natural to suggest that there is but one sense organ the skin[1] and that all other senses are mere modifications of it This however is contrary to the fact that objects are not perceived simultaneously which argues a difference in their apprehension Or again if from the fact that all things perceived by sense have the common quality of being an object it is argued that sense also is one this view can be met by pointing to the different character of cognition in each of the five cases the different location of the organ the different process of its action the different form of the organ and its divergent constitution from atoms Eye nose tongue and skin are composed of atoms of fire earth water and air while the ear is a portion of the ether and these elements have the characteristic qualities of colour odour savour tangibility and sound It is true that all save air and ether possess more than one quality but one predominates both in the atom and in the sense composed of atoms[2] so that each sense apprehends one quality On the other hand no more than five senses are needed for a separate sense is not required for the apprehension of distinctions within a genus[3] Though the senses thus possess qualities they themselves are invisible and their qualities must therefore exist in a latent state[4] as must be the case if they are to perform their allotted function a conception which has a remote affinity with the Aristotelian doctrine of sense as a

The rapidity of the ray presents the observation of its successive action its conjunction with points of space explains our sense of distance cf KKK. i 111 SS v 101 S D gnāga is quoted *Pad ka ra na nâ a* pp 21 22

Cf NK p 45 a Sankhya view ace to *Padarth*

[1] NS i 1 51 S 61 9 VS v 2 5 6

[2] NS i 1 59 C0 ÇV p 98

[3] NS i 1 0–5 SP § 125 TB p 67 Tk p 3 ÇV p 169 Laks p 9 Cf Arist *de An* i 5 ff

potentiality just as the doctrine of mind may be compared with that of the *sensus communis* The organ is thus the place of contact between mind and the self its existence unlike that of external things is proved like that of mind by inference alone every agent requiring to work by means of an instrument The ear however stands in a special position as it actually is part of ether[1] and possesses sound as a quality Hence in the perception of negation in the case of sound what is perceived is not as e g in the case of the negation of a jar a qualification of an object e g earth but of the organ of sense itself[2]

Keçava Miçra[3] is responsible for an effort to make precise the instrumentality of sense and the contact with an object in producing indeterminate and determinate perception respectively Sense is the proximate cause (*karana*) by its activity (*vyapara*) contact gives indeterminate perception, contact as cause with indeterminate perception as activity gives determinate perception in determinate perception with determinate gives desire But this refinement is not generally accepted

3 *Transcendental Perception*

Normal perception as described is essentially based on sensation and there is therefore in it a substantial basis for the contention that the Nyaya Vaiçesika system is comparable to the sensationalism of Locke[4] It is true moreover that in its origin the doctrine was frankly accepted in its fullest extent by both schools the Nyaya expressly lays down that inference depends on percep

[1] This is denied by Kumarila ÇV pp 418-21 cf TC 1 617 ff PSPM pp 60 61 below, cf vi § 3

[2] TC 1 574 ff NSM p 35 [3] p 93

[4] *Athalye TS pp 231 232 Jacobi NGWG 1901 p 464*

tion and the same conclusion obviously follows for such knowledge as is obtainable by comparison But it must not be forgotten that verbal knowledge in the Nyaya conception extended beyond this limit and Praçastapada accords decisive weight to the tradition handed down in the works of his master Kanada neither view being in harmony with a pure sensationalism and in perception we know generality as well as particularity

The growing care with which the mechanism of proof was studied resulted as was inevitable, in the definite attempt to provide a place for the ideal element which was plainly somewhat lacking in the older theory of perception It was realized that to establish a universal proposition by mere empiric means was impossible no summing of individual perceptions would give any assurance of legitimacy of reasoning In the syncretist school in Laugakṣi Bhaskara[1] and in Viçvanatha[2] we find fully developed the conception of a supernormal or transcendental perception (*alaukika pratyakṣa*) which manifests itself in three different forms. The first whose characteristic is generality (*samanya-lakṣana*), is the knowledge which we possess from seeing an individual thing of the class to which it belongs and of all the individuals of that class not however, as individuals but as making up the class. This form of perception cannot be explained by any normal form of contact, it is to be interpreted as due to a connexion (*pratyasatti*) between the mind and generality *sui generis* A second form whose characteristic is knowledge (*jñana lakṣana*) is exemplified in the action of the mind which when we for example perceive a flower brings before us the

[1] TK p 9 cf VSV ix. 1 11 TSD p 45

[2] BP 62 6 for Gañgeça's view see TC ii 283 ff NSM pp 23 ff Its place in inference is fully recognized in Kumārila ÇV pp 201-7 AB, p 193.

conception of fragrance as pertaining to it, though the flower itself is at such a distance that we have no possibility of actually experiencing the odour The process demands, therefore, that we should already have framed for ourselves the connexion of the generic relation of odour and flower, which on the perception of the flower enables us to assert its odour, the process which lies at the root of inference Under the same head fall the products of the creative imagination of the poet or thinker, and even such cognitions as deal with knowledge of the supersensible as 'I know an atom [1]

While these two forms of supernormal knowledge stand in close relation and represent fundamental realities the third, born of ascetic power (*yoga ja*) [2] is peculiar to the system, and derives its existence from its acceptance of the power of seers to perceive in an intuitive vision the whole of truth. The exact cause of this power is asserted to be the contact of mind and the merit which the ascetic has acquired In the complete ascetic the perception is ever present in its perfection, at a lower stage of merit it requires concentration of mind to achieve it

Of these three forms it is clear that the first has close affinities with the simpler early doctrine that every sense can perceive directly generality by the use of the second and third forms of normal contact according as the generality is that of a substance or quality or activity The modern school however has advanced beyond this doctrine by insisting on the peculiarity of

[1] NVTP, *commentary pp 466, 160 161* cf *Padartharatnamālā*, pp. 6–8, where God's perception appears as one distinct class.

[2] VS ix 1 11, 12 Hence ÇSara, pp 2 4 with a division into determinate and indeterminate applicable to the lower form (*ayukta vastha*), and the indeterminate only in the *yuktavastha*, see ch ix § 2 Cf SS. i 90 91 TR *pp 59 60 with commentary* ÇBh, p. 10, ÇV p 72, PBh p. 72 has ārsa Cf KKK i 29 NK p 19

the form of contact and accentuating the part played by mind, which in the first form of supernormal knowledge frames the general concept and in the second is responsible for the association of ideas which constitutes it There need be little hesitation to ascribe to the influence of Buddhist logic with its insistence on the part of imagination in the framing of ideas the growing appreciation in the Nyaya-Vaiçesika of the active part played by mind in the development of knowledge

The conception of the perception enjoyed by ascetics is also found in Dignaga and Dharmakirti[1] who provides for four classes of perception—sense perception mental perception, self consciousness and the perception of ascetics. The second and third classes in his division fall into the sphere of activity of mind in perception in the Nyaya Vaiçesika theory Dharmottara[2] adds that the perception of ascetics is essentially indeterminate

[1] NB, p 103 [2] NBT, pp 7-16

CHAPTER III

INFERENCE AND COMPARISON

1 *The Development of the Doctrine of Inference and Syllogism.*

THOUGH Gautama stands at the head of the school of Nyaya on the essential doctrine which is normally associated with logical inquiries he has extremely little to tell us but his testimony is the more valuable in that it shows the gradual development from mere dialectics to logic Vatsyayana stands on the same level as his master in his exposition of the process of reasoning as described by Gautama[1] he asserts that the process of reasoning is extremely subtle hard to understand and only to be mastered by one of much learning and ability The admission is important as it makes it easy to realize how difficult were found the first steps to understand the real nature of logical reasoning even when the formal procedure was well established as it was in Gautama's time

Gautama lays down that there are five members (*avayava*) of a syllogism namely the proposition (*pratij a*) the reason (*hetu*) the example (*udaharan a*) the application (*upanaya*) and the conclusion (*nigamana*) But Vatsyayana reveals that others raised the number of members of the syllogism to ten and it is probable enough that this represents a view prevalent before Gautama and that his contribution to the de

[1] i 1 34 8 NBh 1 43 [2] i 1 39

velopment of the topic included the removal of these members which in the conclusion have, as his commentator observes, no just place but play a part in the discussion of a topic. These are the desire to know (*jijnasa*) the doubt (*samçaya*) the belief in the possibility of a solution (*çakyaprapti*) the purpose in view in attaining the conclusion (*prayojana*) and the removal of doubt (*samçaya vyudasa*). With its full ten members[1] we have before us in miniature the course of the kind of discussion which preceded the development of formal investigation of the logical process and we can recognize the substantial improvement involved in omitting all that did not directly bear on the attainment of the conclusion.

In the later logic of the schools the scheme of Gautama is illustrated by the formal syllogism:

The hill is fiery
Because it has smoke
Whatever is smoky is fiery like a kitchen
So is this hill (smoky)
Therefore is the hill fiery.

The argument therefore rests on a general assertion of the concomitance (*vyapti*) which exists between smoke and fire. But can this generalization be attributed to Gautama himself? The answer must assuredly be in the negative. The only principle laid down by Gautama is as follows[2]: The reason proves what is to be established through its similarity with the example not through dissimilarity. The example has the characteristics of the thing because of its similarity with it or has not the characteristics, because of dissimilarity.

1 Cf. Bhadrabāhu's 10 member argument for Jainism, *Med. Log.* pp. 6 ff. which however is very different.

2 1. 34. 6. Athalye TS. p. 29. Jacob. NGWG. 1901. pp. 469-477. Gāngānāth Jhā. NS. 1. 385 n. NBh. pp. 40-43.

It is impossible to resist the conclusion that the third member of the syllogism is nothing more than an example, and that the original process knew no formulation of a general rule This conclusion is supported not merely by the fact that the term example is only with great difficulty to be reconciled with a real general proposition but by the form of the syllogism in its fourth and fifth members which run in the original Thus is this (*tatha ayam*) Therefore thus (is it) (*tasmat tatha*) The summing up in the application is expressly said by Gautama to be dependent on the example and this is entirely borne out by the word thus which can only be referred to the word as in the example 'as a kitchen (*yatha mahanasah*) as the example originally ran[1] Similarly the thus in the fifth member of the syllogism is only to be explained as a reference to the as of the third In both cases however if the third member had the full form which it possesses in the later system the reference would be unintelligible With this conclusion accords perfectly the literary use of the syllogism the last two members are not used and the third appears merely in the reduced form of the example while in Vatsyayana where if it had existed the general proposition would have been expected to appear it is never found although he frames many syllogisms especially in Ahnika I of Book V in his commentary the most that he does is to adopt the form It is observed that the kitchen has smoke and also has fire The fact that reasoning can only be by means of a general proposition had thus not yet been appreciated in the school for this reasoning still was from particular to particular by analogy in the manner approved by J S Mill The origin of the syllogistic

[1] Originally presumably *a kayam*

form can then be recognized as arising from the effort to expound a proposition in another the proposition is stated, the reason for it is asked, the ground is given, its validity is called in question, an example familiar and therefore cogent is adduced and the similarity of the subject to the example is emphasized and the conclusion is finally drawn It is characteristic of the conservatism of the schools that the scheme was retained long after it had ceased to be the real form of the reasoning employed

The other important contribution by Gautama to the theory of the syllogism is contained in the solitary aphorism[1] devoted to the conclusion which thus fares badly compared with the members of the syllogism to which eight aphorisms are devoted while fallacious reasons have six There inference is declared to be dependent on perception (*tat purvakam*) and to be of three kinds—*purvavat*, *çesavat* and *samanyato dṛstam* These phrases are in themselves hopelessly obscure, and Vatsyayana gives two explanations of fundamentally different character, a fact which may be interpreted either as indicating that even before Gautama there were different views prevalent in the school, or that there intervened a considerable interval between Gautama and his follower during which conflicting interpretations of his aphorisms had come into vogue According to the first of these interpretations inference *purvavat* 'as formerly', is inference from cause to effect thus from the sight of clouds it is inferred that rain will fall Inference *çesavat* is from effect to cause as when from the swelling river it is inferred that rain has fallen

1 1 5 Other views are given by Vācaspati and by Uddyotakara, *i c*, who prefers the idea that it is inference from something commonly seen, e g water from the presence of cranes, cf SBH viii 3 The reading *'dṛṣṭa* is impossible

Inference *sāmānyato dṛṣṭa* is illustrated by such a case, differing from the two previous as that in which from observing the different positions assumed in the course of the day by the sun we conclude by analogy of ordinary motion that it moves although such motion is not open to our perception The second explanation offered by Vatsyayana makes *pūrvavat* an inference based on previous experience of the concomitance between two things, such as smoke and fire which we still therefore accept later on when we no longer have the actual perception of the concomitance before our eyes *Śeṣavat* is proof by elimination thus sound can be proved to be a quality by showing that it must be either a substance, quality, or activity, and that it can be neither the first nor the last, and therefore must be the second *Sāmānyato dṛṣṭa* is an inference in which the relation between the reason and the consequence not being a matter of perception, something which is not perceptible is proved to exist by virtue of the abstract similarity with something else of the reason a definition which is rendered more intelligible by the instance adduced which shows that the self or soul is proved to exist by the fact that desire &c are qualities and that qualities must abide in some substance namely, the self

It is doubtful whether either of these theories has any claim to represent the true state of affairs, for in an obscure aphorism in a later part of his work[1] Gautama refers to objections to inference based on the fact that it sometimes misleads thus to the argument that if we see a river swollen we infer that there has been rain may be objected that the cause may be an embankment

[1] iii 1 37 ; Jacobi NGWG 1901 p. 45 ; NH pp. 86 87 ; NV pp. 2 3-5 The answer is as to the specific character of the facts on which inference is based

to the argument that, if we see ants carrying off their eggs we infer there will be rain may be objected that the real cause is that some one has damaged their nest while, if we infer from the scream of a peacock the coming of rain we may really be hearing a human cry, from which no such inference can be drawn It can scarcely be denied that the three instances given must be deemed to correspond with the three forms of inference previously defined, and in that case it is clear that to Gautama inference *pūrvavat* is from the later to the earlier from the effect to the cause, and that *vice versa* inference *çeṣavat* is from the earlier to the later but the precise sense of *sāmānyato dṛṣṭa* must remain obscure perhaps denoting similarity as a basis of inference It is difficult to doubt however, especially in view of the tradition and the use of the phrase later though in a different context by Praçastapāda that the term applied to some abstract form of reasoning in which perception could not directly be applied

This conclusion receives reinforcement from the further development given to the scheme at some later period for which we have the solitary testimony of Vacaspati Miçra in his exposition of the Sāṁkhya system[1] The decisive advance made is that the three forms are reduced to two classes the first of these styled direct (*vīta*) comprises *pūrvavat* and *sāmānyato dṛṣṭa*, the second styled indirect (*avīta*) is comprised by *çeṣavat* The latter is a means of proof by elimination, and is used to establish for example the Sāṁkhya doctrine of the pre existence of the effect in the cause, the clay and the pot are one, because neither the relation of union or separation between them is possible, for, if they were different, then they must either be in a relation

[1] Burk VOJ xv 251 61, *cf* the use of *vīta* and *avīta* in NV, p. 126, Vijñānabhikṣu, SS i 103

of union like the pot and its contents, or in one of separation, like two mountains, neither of these conditions is the case therefore clay and pot are one[1] In the same way the existence of the soul is established by the argument that if it did not exist there would be no self consciousness which is manifestly contrary to fact Between the two forms of direct proof the difference consists in the nature of the knowledge which results, not in the process itself In *purvavat* that knowledge is concerned with a general principle which is perceptible, in *samanyato drsta* the peculiar nature of the knowledge involved lies in the fact that the general relation exists, but is not open to perception (*adrstasvalaksana samanya* as opposed to *drstasvalaksana samanya*)[2] The form of inference *purvavat* is of minor importance to a system which is concerned with higher things than those of sense the other form of direct proof is invaluable to establish such things as the existence of the soul All that has the characteristics of joy sorrow and confusion it is argued, is guided by another like a chariot by the driver, all the world has these characteristics therefore all the world has a ruler Or, again thus we can prove that the perception of colour requires sight, perception of colour requires an instrument namely sight, for it is an activity, every activity requires an instrument, as felling trees requires an axe, perception of colour is an activity, therefore perception of colour requires an instrument The skilled use made of the arguments is obvious, but it must remain doubtful to what school is to be ascribed the adaption to this end of the older division of the Nyaya It is plain that it existed before Vācaspati Miśra, and it may be[3] that it was devised by some member of the Nyaya before it was

[1] Cf NV., p. 234, which favours the early use of the argument.
[2] Cf TSPM, pp. 47, 48 [3] Contra Vācaspati on i. 1 35.

adopted by some adherent of the Samkhya The failure of the doctrine to become accepted in either school is clearly remarkable, for it plainly offered a convenient means for giving effect to the traditional theory more explicitly than was done by the contending view of its significance But, of course, it would be a mistake to seek to find in it the parallel of the distinction between induction and deduction in the terminology of formal logic[1] the character of the reasoning corresponds strictly neither to deduction or induction, and the distinction between these two forms, in itself of no ultimate importance, is *not* reproduced in any form of the Indian doctrine To Gautama it is clear the distinction could not possibly have occurred, content as he was with reasoning by analogy from particular instances

The terminology of Gautama and of Vatsyayana naturally reflects the stage of their researches the normal terms of the later logic, *pakṣa*, *pakṣadharmata vyapti*, *anvaya*, *vyatireka*, and *parāmarśa*, are unknown to the Sutra and the term *sadhya*,[2] which later denotes the conclusion to be proved of the subject has the not unnatural sense of the subject itself as that of which an attribute is to be established

If the early Nyaya school had made little progress in the scientific examination of *its* subject, *it* is not surprising that Kanada, whose interest was essentially in reality, has little to add to the doctrine of inference The fact that he mentions in the chief passage in which he touches on the matter the technical term *anvaya*,[3] which denotes a member of the syllogism, and in the

[1] Jacobi *Gott Gel. Anz* 1896, p 204 Garbe *SI Mya*, pp 153 154 Birch, *VOJ* xv 262, 263 Max Müller *Six Systems*, pp 497 500, Sud *Intr*, p 414

[2] *Cf* Gangānātha Jha, *NS* i 4 36, *NBh*, p 41

[3] ix 2 1, 2, *cf* iii 1 7 14

context has the meaning example, is a clear indication that he contemplated logical doctrine much as it stands in Gautama. His own interest is devoted to a statement of the real relations which afford the basis of the logical relation between reason and consequent. They are enumerated as cause and effect, conjunction, opposition and inherence: inference can be from the effect to the cause or *vice versa*.

2. *Praçastapāda and Dignāga*

In Praçastapāda's exposition[1] of Kaṇāda's doctrine of inference an advance of first rate importance is made. The attempt at an exhaustive enumeration of real relations as a basis for inference is abandoned in favour of the wider conception of concomitance (*sāhacarya* in his terminology, as opposed to the later *vyāpti*) between the ground (*sahacarita*, *avinābhūta*, later *vyāpta* or *vyāpya*) and the consequence. He does not however admit that this is an innovation, he claims that Kaṇāda's list of real relations is not intended to be complete but illustrative, every form of relation being meant to be included. His own doctrine is simple[2]; if anything is indissolubly connected with another in time or space it is legitimate for us finding ourselves confronted with one of the two to conclude the existence of the other also. The affirmative judgement is therefore analysed as follows: a man first takes cognizance of the connexion of fire and smoke expressed in the propositions 'Where there is smoke, then there is fire; in the absence of fire there is no smoke', and when he sees smoke so as to have no doubt of its existence, he proceeds to conclude the presence of

[1] Jacobi, NGWG. 1901, pp. 479 ff.; Stcherbatskoi, *Muséon*, v. 153 ff.
[2] p. 205; cf. Kumārila, ÇV., pp. 402 ff.; Nyāya, p. 5, *samyogino dhūmena pāvakaḥ sahacaritasādhanam anumānam*; PSPM., pp. 43 ff.

fire There is no departure from the realism of Kanada but the precise list of real relations which he expounded has proved to be too limited to meet all needs and a more general relationship has been propounded which covers such cases as the appearance of one set of lunar mansions at the setting of the other, or the inference of the presence of water from the sight of cranes

In close connexion with the new conception stands the account given by Praçastapāda of the conditions for the validity of the reason or middle term as a means of proof In his account he cites[1] as a view of Kaçyapa the rule that 'that middle term is capable of producing a correct conclusion which is connected with the major, present in similar cases, and absent in dissimilar cases', a classification on which a theory of fallacies is based This theory goes it is certain far beyond Kanada who knows two kinds of fallacy only but later tradition assumes that Kaçyapa[2] is a reference to Kanāda by his family name and it may be regarded as proved that Praçastapāda intends us to accept the view set out as Kanada's What remains doubtful is whether in this he is deliberately attributing to the Sutra a view, which he desired to read into it or whether the process of change dates from before his time It is a point in favour of the latter theory that he himself puts forward four classes of fallacy but this is not of decisive weight It is of importance however that concomitantly with the doctrine of defects of the middle appears one of defects of thesis and conclusion a treatment which is almost peculiar in the school to Praçastapāda.

A further important innovation is the appearance of the distinction wholly unknown to Gautama and Kanada of the process of inference for one self (*svārthā*

[1] p 200. [2] Cf TR p 144

svārtha) and for another (*parārtha*) The distinction is one which is accepted by the syncretist school though not adopted by commentators on the Nyaya like Uddyotakara and Vacaspati Miçra, who remain faithful to the texts they explain It is clear that for him the inference for oneself was the only true form of inference after defining it he proceeds to show that the other means of proof beside perception and inference allowed by the Nyaya and Mimansa schools have no claim to separate rank and can be included in inference This form of inference he divides into two classes[1] in contradistinction from the three which the Nyaya set up namely *dṛṣṭa* and *sāmanyato dṛṣṭa* The former is the form of inference when the middle term and conclusion[2] are not heterogeneous, the latter is the form when they are heterogeneous, and the result depends on an idea common to the reason and the conclusion The distinction, though far from clearly expressed is evidently between matters of inference which fall under the sphere of sense perception and those which escape that test, and therefore must rest on abstract reasoning The definite acceptance of this doctrine by the Vaiçeṣika stands in harmony with the acceptance in place of the crude realism of Kanāda of the wider idea of logical connexion, with a more vaguely conceived physical counterpart

The inference for another is definitely identified with the five member syllogism, which in Gautama forms a category, and is not classified formally as a means of proof though inference itself is so classed The names

[1] p 205, so NSārs, pp. 5, 93 ff.

[2] Jacobi (NGWG 1901, p 431) and Suali (*Intr*, p 417) render *prasiddhasādhyayoḥ* as referring to the subject and example but this is contrary to the analogy of *sāmanyato dṛṣṭa* in the Nyāya cf *apratyakṣe liṅgaliṅginoḥ sambandhe* NBh, p. 14 cf ÇV p 195, vv 92 93 in pp. 201 ff the double division is discussed TR pp 81 82 PsPM, vv. 47, 48

of the five members, however, differ from those given in the Nyaya school They appear as *pratijña apadeça nidarçana, upasamdhana* and *pratyāmnaya* the first alone therefore coinciding with the Nyāya names It is not probable that the new terms were the invention of Praçastapada the second the name for the reason is given by Kanada[1] himself The different terminology may be interpreted as denoting some measure of independence of the Nyaya in the development of logic in the Vaiçeṣika school but too much stress cannot be laid on this conclusion, the influence of the Nyaya is plain on Praçastapada, he divides the example into the two cases of similarity and dissimilarity[2] which precisely reproduces the older division of the Nyaya and follows its precise terminology But the treatment shows one great distinction which is the inevitable result of the new conception of invariable concomitance In the third member of the syllogism the principle is expressly set out and the example sinks to the level of an illustration though not until the last days of the schools was the further step taken and the example omitted as superfluous.

With these changes the whole system of the Nyaya appears transformed, what was a mere technical discipline has been changed into a deliberate effort to formulate the principles involved in inference and the result achieved is largely adhered to by the following authors of both schools As yet however the terminology of Praçastapada differs largely from the later norm nothing shows this more clearly than his avoidance[3] of the terms *vyapti, vyapaka* and *vyapya*, or *paksa, upaksa* and

[1] iii 1 14

[2] This the Mimāṁsa rejects, PSPM, p. 51 ÇD, p. 44

[3] Jacobi NGWG 1901 p 482, Stcherbatskoi *M seon* v 15⁹ n 3, 155 n 2

accuracy his tenets Some of his precise arguments are also given in Uddyotakara's commentary, the attribution to Dignaga being vouched for by Vācaspati Miçra so that it is possible to form a definite view of his contributions to logical theory

The date of Dignaga is obviously of the greatest importance for this question but it is involved in obscurity The tradition of his life preserved in the Thibetan Lama Taranatha's *History of Buddhism* ascribes his place of birth to Kañci now Conjeeveram in the Madras Presidency and makes him the son of a Brahman Taught by Nāgadatta of the Vatsiputriya sect he became expert in the doctrines of the Hinayana school of Buddhism but later acquired from his teacher Vasubandhu the brother of Asanga knowledge of the doctrines of the Mahayana school and in special of the idealism (Vijñanavada) of which Asanga and Vasubandhu were the leading representatives He defeated his opponents in disputes at Nalanda travelled widely in Mahārastra and Orissa and finally died in the latter country If the record has any claim to truth it enables us to assign to Dignāga a date shortly after the *floruit* of his teachers and in fact on the strength of arguments which seem to make A D 480 a plausible date for Vasubandhu Dignaga has often been assigned to the early part of the sixth century A D[1] This view however can hardly now be maintained for there are strong reasons to suppose that Vasubandhu can more safely be dated in the first half of the fourth century A.D[2] so that Dignaga may have flourished before A D 400 A famous verse of the *Meghaduta*[3] has been interpreted by the ingenuity

[1] Takakusu JRAS 1905, pp 1 ff

[2] N Peri, *Bull. de l'École française d'Extrême-Orient* xi 339 ff cf Keith JRAS 1914 p. 1091

[3] i 14

of commentators as a reference to the logician's heavy hand and if the tradition is accepted it would tend to confirm the date suggested for Dignaga, since Kalidāsa is more probably to be dated at the end of the fourth than of the fifth century But there is no cogent ground for accepting the tradition It is however, clear that, so far as chronological grounds go there is nothing to prevent the supposition that Praçastapāda was indebted for his system largely to Dignaga whose fame is attested not merely by the attacks of the Nyaya school but by the onslaught of Kumārila Bhatta the famous Mimansist, and his commentator Pārthasarathi Miçra and the criticisms of Jain writers like Prabhacandra and Vidyanātha

The *Pramānasamuccaya* in his treatment of topics already presents a close similarity to Praçastapāda, It is divided into six chapters, the first dealing with perception, the second with inference for oneself, the third with inference for another, the fourth with the three characteristics of the reason or middle term and the claim of comparison to be a separate means of proof which is disallowed, in the fifth verbal testimony is similarly rejected, and in the last the parts of a syllogism are treated of The *Hetucakrahamaru* contains an interesting examination of the different forms of syllogism with a view to determine which are valid and the *Nyayapraveça* illustrates fully the different forms of fallacy

The essence of the doctrine of Dignaga is the exposition of a theory of logic, in modification of the established doctrine of the Nyaya to harmonize with the fundamental idealism of the school of Asanga The views of Asanga were historically a modification of the extreme scepticism and nihilism of the doctrine of vacuity (*çūnyavada*) which is associated with the name of

Nagarjuna[1] While Nāgarjuna deduced from the utter incompatibility of our ideas that there was no reality either beyond them or in them the new doctrine was compelled to admit that so radical a doctrine contradicted experience too widely to be acceptable and it fell back on the theory that while there were no realities external to the mind nevertheless thought itself was not unreal though in accordance with the essential tenets of Buddhism they could not admit the existence of a soul or self This thought for them assumed two forms consciousness proper (*alaya vijnana*) which lasts until the individual reaches Nirvana and which serves in lieu of the substantial soul and the thoughts of the individual about things (*pravrtti vijnana*).[2] It seems however that Dignaga's[3] logic went beyond this standpoint his doctrine of perception manifests elements which are not in harmony with the view that all reality is thought As has been mentioned he distinguished perception sharply and definitely from imagination and declared that what it gave was what was without name class &c an idea which recurs in the indeterminate perception of the schools Whereas on a strictly idealistic theory in the ultimate issue perception should not have remained distinct from other mental processes[4] he appears to have held the view that in it man came into contact with a reality which though lasting but an instant (*ksana*) was in truth real (*vastu paramarthasat*) but at the same time, because of its momentary character was

[1] *Madhyamika Sutra* (Bibl Buddh iv) M Walleser *Die mittlere Lehre des Nāgārjuna* Heidelberg 1911 1912.

[2] Asanga *Mahayana sutralankara* (ed and tr S Lévi Paris 1911) xi 36 SBE. xxxiv 403 427 de la Vallée Poussin *Bouddhisme* p 20

[3] Stcherbatsko *Musée* v 16[3] 4 ABT pp 4 14 20 above ch ii § 1

[4] SnS iv [2] 5 9 ÇV ii pp 191 ff 169 ff *Mahāyu* x 1 ff 15 ff xi 18

never knowable For the actual formation of any idea to the datum of perception or sensation there fell to be added the working of imagination (*vikalpa*) a conception which is, certainly not without justice to be compared with the Kantian doctrine In a similar strain Dharmakirti develops a doctrine of perception which he defines like Dignaga as distinct from imagination but qualifies as without error (*abhranta*)[1] In perception there is a two-fold object that which is immediately apprehended or contributed by the datum (*grahya*) and that which results from the operation of thought (*niçcaya*) set to work by the force of the apprehension The first corresponds to the momentary element the second to the series of momentary impressions (*kṣana santāna*) as they are worked up by thought into a unity and this is what is known not the momentary impression which lies beyond knowledge[2] According to the proximity or remoteness of an object of perception the perception varies this is its peculiar characteristic (*sva lakṣaṇa*) and proves it to be a reality (*paramārthasat*) and it shows that it possesses practical efficiency In this view there is further advance towards an assertion of the reality of something beyond thought, but the position is not inconsistent with that of Dignaga [3] and it is clearly analogous to the view of the Vaibhāsikas who appear in the *Sarvadarçanasaṃgraha* as adopting the terminology of Dharmakirti

For Dignaga therefore the whole of knowledge despite its contact at one point with an unknowable reality, is made up of ideas involved in both perception

[1] NB., p. 103, cf on *kalpanā* NV., pp. 43–5 TR pp 60 61 above ch ii, § 1 SBNT pp 3*–6

[2] NBT p 16*

[3] Cf Jacobi JAOS. xxxi 8, n 1, whose view that the *kṣaṇasantāna* is *para vastusat* seems to be untenable, *svalakṣaṇa* is not the *santāna*, NBT p 1* NV 1 41

and inference these ideas are the product of our mental activity (*prāpaṇaçakti, prāpaka vyāpara*),[1] and are not created by any external cause In a passage happily preserved for us by Vacaspati Miçra[2] he denies emphatically that there can be any real thing indissolubly connected which can be the logical ground of anything, since the relationship of logical reason and consequent does not depend on external reality, but on the relationship of attribute and subject which is a creation of the mind The ideas thus obey laws of connexion not imposed by reality, but by the action of our own thought (*buddhy arūḍha, niçcayārūḍha*[3]), and thus *a priori* in character The nature of these laws is further made explicit by the division of the syllogism on the basis of the relations of identity, cause and negation. It is impossible to ignore the principle underlying this division it corresponds to a classification of judgement based on the relation of subject and attribute first into positive (*vidhi*) and negative (*anupalabdhi* = *pratiṣedha*) while the positive judgement is then divided according as it is based on identity i e is analytic (*svabhāvānumāna*) or is based on causality, empiric (*kāryānumāna*). Reduced to a Kantian form we can recognize, without too much pressing the ideas *a priori* of substance and attribute being non being identity, and cause, a list which has sufficient affinity with the Kantian categories to be more than a mere curiosity of speculation All

[1] NBT, p. 15, cf p 16 *samlana eva ca pratyakṣasya prāpaṇayah.*

[2] *sarvo yam anumānanumeyabhāvo buddhyārūḍhena dharmadharmibhāvena na bahiḥsattvam apekṣate*, NVT, p. 127, with *°nyayena* in Kāçikā on ÇV Nirālambanavada 167, 168 (JBRAS xviii 230) Kumārila s reference is clear For the Sautrāntika and Vaibhāsika views see SDS, pp 14ff, 18, SSS iv 3.1 7, 4 18,19 The parallelism with the former (de la Vallée Poussin, *Muséon*, ii 67) seems less than with the latter, who appropriate *Dharmakīrti s definition of perception*, cf NBT, pp. 16-20

[3] NBT, p 30 Cf Berkeley, *Siris*, § 305

our ideas or the objects which we know are indissolubly linked with one another since they are either inferable from them by means of analysis or related as cause and effect The real relations between the unknown things which lie beneath our knowledge are indifferent to us and have no part in forming our ideas [1]

The division of the syllogism in this way is not recorded of Dignaga and by Sureçvara [2] is expressly attributed to Dharmakirti This view is confirmed by a passage from Dharmakirti quoted by Çridhara [3] where it is said 'The rule according to which there exists an indissoluble connexion between ideas or objects does not arise from observation or non observation but from the laws of causality and identity which have a universal application There is of course nothing inconsistent here with the view of Dignaga, which rather acquires greater precision by the new matter thus added

The theory of the ideal nature of the indissoluble connexion which lies at the base of reasoning thus presented stands in close relation to the idealist view of the world of the Yogacara school and therefore there is *a priori* no ground for supposing that the idea was borrowed by Dignaga from Praçastapada or from one of his predecessors In truth it is obviously easier given an idealistic hypothesis to conceive an indissoluble connexion which it lies in the power of the mind to impose than to arrive at such a result from the standpoint of realism How can it possibly be said on the basis of our imperfect experience that things are indissolubly connected?

[1] Stcherbatskoi *Muséon* v 144 Cf SDS p 6 Kant *Kritik der reinen Vernunft* ii 80 ff 235 ff

[2] *Brhadaranyakavārttika*, ch vi Pathak JBRAS xvii 9[9] so Munisundara ibid xix 5[7] It is criticized in TR, pp 8[9] 4

[3] *NK* p 207 *Muséon* i 56 TR p 8[9] SDS p 5 Deussen's rendering (*Allgem Gesch* I iii 204) is impossible cf *Padarthāratnamāla*, p

Praçastapada does not attempt to answer this problem the theory of a peculiar variety of perception (*jñana lakṣana*) is a later effort to meet the need of an explanation of how a universal connexion can be assumed from experience *A priori* therefore it is more reasonable to assume that Praçastapada owes the principle to a school in which it had a natural right to exist[1] The argument[2] against this view that, had the Buddhists invented for themselves the concept of indissoluble connexion they would never have set up the real categories of identity, causality and non existence, which on the other hand are comparable with the older Vaiçeṣika list of Kaṇāda loses all its force when the true nature of these divisions is realized moreover the argument is based on ignorance of the fact that the doctrine as it first appears in Dignāga has not this addition

There is however, positive evidence that the introduction of the idea of indissoluble connexion was recognized in the Nyāya school as due to Dignāga Uddyotakara[3] carefully refutes a doctrine which attributes the name of syllogism to the demonstration of something as indissolubly connected with something else by one who has certain knowledge Uddyotakara objects that, as in the Buddhist view everything is indissolubly related to everything else the knowledge in question of a thing as indissolubly connected is no more than knowledge *sans* phrase and not inference Now not only have we the assurance of Vaeaspati[4] that Uddyotakara's criticisms are usually directed against Dignāga but he actually assigns the doctrine impugned to that authority,

[1] Stcherbatskoi, *Muséon* v 184 45

[2] Jacobi, NGWG 1901 p 483

[3] NV p 56 Cf the Sāṁkhya definition SS i 100 an older definition is given in NV, pp 59 60

[4] NVT pp 1 127 NVTP p 28

and explains that it stands in close relation to his theory of knowledge which admits as the basis of reasoning the power which the understanding has to create its own objects *distinguishing in them the aspect of subject* and attribute while not dealing with real relations It is significant that here and elsewhere Uddyotakara[1] admits that there are exceptions to the rule of indissoluble union even in the case of smoke and fire since not only does fire occur without smoke as is generally admitted but also smoke without fire which contradicts the fundamental assumption of the stock syllogism of the schools In yet another place Uddyotakara,[2] dealing with inference from effect to cause discusses and rejects the idea of indissoluble connexion and Vacaspati[3] again attributes the doctrine to *Dignaga*, and emphasizes its accordance with the Buddhist theory of knowledge There is also a significant verbal similarity in the account of indissoluble connexion given by Praçastapada[4] with that of Dignaga as reported by Uddyotakara

In Dignaga[5] and in Dharmakirti[6] we find clearly expressed the three conditions which must be fulfilled by the middle *term if the syllogism is to be correct* the conditions being further used for the purpose of explaining the classes of defective middle term We find the fact recognized clearly in Uddyotakara[7] who criticizes the doctrine evidently as Vacaspati[8] assures us as he found it in Dignaga himself The formula runs The middle term must be present in the subject also in similar cases and be absent in dissimilar cases. The

[1] NV p 55 cf S reyvara in JBRAS xvi 1 9? v 2

[2] NV pp 5? 4

[3] *NVT* pp 120 2

[4] p 205 *prasiddha anayasya (prasiddha vabhavasya NK)* = *adv dah (e nan ar jakai dah* NV p. 56)

[5] *Med Log* pp 91 ff

[6] NB pp 111 ff

[7] NV pp 58 59

[8] NVT p 1

critic objects that the language should have made it clear that the middle term must be present in the whole extent of the subject and not in part alone, that, while it must only appear in similar cases, it need not appear in each of them, and that it must be absent from all dissimilar cases The nuance indicated is expressed in Sanskrit by the word *eva* and Vacaspati assures us what would otherwise be plausible that the formulation of the doctrine of the three conditions has been affected by the Buddhist doctrine of the negative or rather relative signification (*apoha*)[1] of words On this view a word has not the power (*śakti*) attributed to it by the Mimansa to communicate to objects the verbal form under which we conceive them, or to express the real nature of anything it merely serves to distinguish it from other things and in a proposition in view of the necessity of making clear the precise implication of terms it is useful to append *eva* to the word to which special significance attaches as a mode of reminding the hearer or reader of the need of attending to the implication Now it is recorded that in this special case Dharmakirti criticized Dignaga apparently because the latter held that one *eva* was sufficient to bring out the full implication of the rule regarding the three conditions of the middle term while Dharmakirti held that in each case the important term must be stressed in this manner and in face of this fact Uddyotakara's criticism reveals clearly its Buddhist origin which is the less surprising since we now know that Dharmakirti and the Uddyotakara were contemporaries

Yet a further proof of the dependence of Praçastapada on Dignaga may be derived from the fact that the

[1] Ratnakirti *Apohasiddhi* SBNT pp 1 19 Stcherbatskoi *Mimansa* v 165 7 ÇV pp 929–828 NK pp 31 90 *Atmatattvaviveka* pp 80 48 51 NVT, pp 340 ff NBT p 1 NV pp 394 ff

distinction of reasoning for oneself and reasoning for another which gives syllogism, is present in Dignāga and is expressly stated by Dharmottara in his commentary on Dharmakīrti[1] to have been introduced by him, and to stand in relation to his theory of the function of language in knowledge. Denying as Dignāga did the authority of either the sacred scriptures or even of a master, he reduces the authority of verbal testimony to its true character. In the *Pramāṇasamuccaya*[2] the rejection of verbal testimony as a separate and independent source of knowledge is based on the argument: does credible testimony mean that the person averring it is credible, or that the testimony is credible? If the former, it is mere case of inference from the credibility of the speaker; in the latter, it is a case of perception. In the work of *Dharmottara*[3] the same view of the credibility of testimony is emphasized in a new form: testimony is a product of the true external fact with which it is immediately connected. Thus the syllogism in so far as we draw from it true knowledge is not a source of knowledge by reason of its words but by reason of the facts on which these words rest; a syllogism, therefore, is a source of knowledge only in a metaphoric sense (*aupacārika*) for it is the facts, not the words which are the source of knowledge. Praçastapada's debt to Dignaga in this regard is clear, despite his slight change in terminology[4] which may legitimately be attributed to a desire to conceal his borrowing, for he retains in practice if not in theory verbal testimony as a separate means of proof, while adopting the principle

[1] NBT, pp. 46, 47.

[2] *Mel. Log.*, pp. 89, 81; criticized in NV, p. 63. Cf. NSāra commentary, p. 94.

[3] NBT, pp. 63-5: *kāryaliṅgajam anumānam pramāṇam śābdam*; cf. PBh., p. 213.

[4] *svanicitārtha* in lieu of *svārtha*. NSāra, p. 3 has *svārtha*.

of distinction between reasoning for oneself and reasoning for another which in truth rests on the fact that verbal testimony is no true means of proof at all

The same dependence of Praçastapada on the Buddhist logic can be traced in detail in the doctrine of fallacies, and it is significant that he alone accepts the fallacies of the subject and of the example which play a marked part in the logic of Dignaga Nor is it fanciful to ascribe to the same influence the adoption by Praçastapada of the form of exposition which he uses, and which makes no effort in the manner of Vatsyayana to follow the order of the text of the original Sutra So deeply indebted was Praçastapada to Dignaga that to ascribe this point also to his influence is natural and convincing

To preserve the theory of the priority in invention of the conception of invariable connexion to the Vaiçeshika school we should be compelled to postulate its appearance in that school at some period before Dignaga and assume that the tradition of its discovery had been lost so early that Vacaspati Miçra found no trace of it in the works which he could use in compiling his treatise on the Nyaya The conjecture in the absence of any positive evidence would be unsatisfactory, and the originality of Dignaga is supported by the fact that we can trace in his immediate predecessors an interest in the problem which suggests that it formed the subject of investigation to an extent likely to result in the precise formulation of the true doctrine Thus from Chinese sources we know that Maitreya who is stated to have been a teacher of Asanga, framed the syllogism as follows

Sound is non-eternal
Because it is a product
Like a pot but not like ether
A product like a pot is non eternal
Whereas an eternal thing like ether is not a product

Asaṅga himself framed the fourth and fifth of these clauses differently so as to run

Because a pot is a product it is non eternal so is sound because it is n product

Therefore we know sound is non eternal[1]

To Matiṛeya therefore the argument was simply from instance to instance the form accepted by Asaṅga though it still is based on the example, shows a clear effect to attain the general principle which alone is effective as a reason In Dignaga's[2] formulation the syllogism runs

The hill is fiery

Because it has smoke

All that has smoke is fiery, like a kitchen and whatever is not fiery has no smoke like a lake

The retention by Dignāga of the homogeneous and heterogeneous examples is interesting it recalls the rule of Gautama and is re echoed by Praçastapada

A further step is taken by Dharmakirti[4] whose exposition in the *Nyāyabindu* is divided into three parts only in lieu of the six of the *Pramāṇasamuccaya* namely perception inference for oneself and inference for another He maintains that the example is no real part of the syllogism since it is implicit in the middle term In the reasoning The hill is fiery because it is smoky like a kitchen the term 'smoky which implies fire includes a kitchen and other smoky things and the example is all but unnecessary Nevertheless the example has so far value in that it points out in a

[1] *Med Log*, pp 74 ff Sugiura *Hindu Log*, pp 30 ff

[2] *Med Log* pp 30 36 The thing to be proved in his view is the hill as possessed of fire a view rejected in NV pp 52–4, in favour of smoke qualified by fire so PSI M p 40, as opposed to Kumārila

[3] How far Vasuban thus anticipated Dignāga's doctrine of *rūpya* does not appear from our scanty information *Med Log*, p 77

[4] *Med Log*, pp 114 115

particular and therefore more impressive manner what is implied in the general proposition

With Dignaga and Dharmakirti the progress in logic made by the Buddhists appears to have come to a head it was the logic of Dignaga which was carried to China by the famous pilgrim Hiuen tsang who acquired it in the course of his long stay (A D 630 45) in India and introduced into Japan by a Japanese pupil of his the monk Dohshoh [1] In India the Nyaya school was driven by the necessity of making headway against the new doctrine of the heretical school to revive the study of logic the movement taking form in the elaborate commentary of Uddyotakara in which he sought to refute Dignaga The work however is not confined to this end it takes into account as was inevitable the views of Praçastapada on logic and it marks a definite stage in the process of amalgamation of the schools. Dharmakirti answered Uddyotakara but after him no new element of vital importance appears to have been introduced into the study [2] The questions which have occupied the earlier writers were the subject of minute examination difficulties real and fancied were developed and explained in abundance and the doctrine received in Gangeça's *Tattvacintamani* its final form save in detail It was in this shape that the doctrine passed into the syncretist school of Nyaya Vaiçesika all of whom save Çivaditya accepted the Nyaya logic as the basis of their system without substantial change

[1] Sugiura *Hindu Log* pp 38 ff

[2] Dignāga and Dharmakirti were much criticised in other schools e g by Kumārila and Suresvara The Mīmāmsā school in logic and metaphysics also keeps aloof and but traces of Nyāya Vaiçesika influence Prabhākara's date is unfortunately uncertain the tradition (e g SSS 19 vii 15) of his posteriority to Kumārila is unplausible PSPM pp 11 17 Uddyotakara (e g NV pp 55 56) criticises views like his on inherence (PSPM pp 89 100) but not so as to prove his priority

3. *The Final Form of the Doctrine of Inference.*

Inference in the normal definition of the modern school [1] is the proximate cause of the inferential judgement or knowledge (*anumiti*), and thus knowledge is of a special character, distinct from that attained in perception. To Buddhist logic [2] the distinction lies in the fact that perception gives, though inexpressible in words, the peculiar character (*sva-lakṣaṇa*) of the momentary object, while inference deals with the ideal generality (*sāmānya-lakṣaṇa*), but this view is not, as has been suggested, that of the Nyāya. In the strict sense of the term, as Uddyotakara [3] points out, the peculiarity of the object is inexpressible, for all the terms denote at once generality, individuality, and form. Moreover,[4] the doctrine of perception insists that in it we grasp at once generality and individuality in the determinate form, which is the only one known to us, and all means of proof give us knowledge of generality, particularity, and that having it. The distinction between the knowledge we obtain by perception and that given by inference rests, therefore, on the fact that in perception we know the individual in its concrete detail as well as its generality, &c., in inference we deal with generality, &c., in an abstract form alone, we have *on the one hand* before us the crackling fire, on the other hand we infer the existence of fire past, present, or future as a generality connected

[1] TC. iii. 1 ff., SP., §§ 142-53, TA., pp. 17-19, TB., pp. 31-42, TK., pp. 10-12, TS., §§ 44-51, *BP.* 66-70, 142-143, *TR.*, pp. 65-70.

[2] NB., p. 103, *Madh. Vṛtti*, pp. 59, 60, 261, *Jacobi*, NGWG. 1901, p. 462, n. 2.

[3] NV., pp. 44, 45.

[4] NV., p. 6, NVT., pp. 12-14; NVTP., pp. 139-50, PBh., p. 186, NK., pp. 189, 190, ṢDST. 67, *cf.* ÇV., pp. 232-33, 332-4, PSPM., p. 95.

with smoke and the precise detail of the fire which causes the smoke never appears to us

As the nature of the knowledge obtained by inference differs from that gained in perception so the inferential process differs from the process of perception An inferential judgement is defined as the knowledge which is due to reflection or consideration (*paramarça*) and consideration in its turn is defined as the knowledge that the reason is an attribute of the subject and is invariably connected with the conclusion which is to be proved of *the subject The definition of consideration is of first* importance in the doctrine of inference and this is emphasized in an early doctrine recorded in Uddyotakara[1] which defines inference as consideration or reflection regarding the reason (*linga paramarça*) The process as explained by Keçava Miçra is as follows the first stage in the operation leading to inferential judgement is the perception of the invariable connexion between smoke and fire a result due to frequent observation of the concurrence *of the two in a kitchen or elsewhere* Then smoke is observed arising on the mountain Thirdly through remembrance of the relation which perception has established between the smoke and the fire there arises reflection in the form that there is on the mountain smoke which is always accompanied by fire upon which supervenes the inferential judgement The mountain is fiery

The value of the conception of inference as a mental process is *obvious and is enforced with minute detail by* the school Merely to set the two premisses The mountain is smoky Smoke is always accompanied by fire side by side would amount only to the assertion of

[1] NV p 47 cf Udayana in TR p 65 TB pp 31 3 36 or *tritiyal inga* the first and second stages being knowledge of smoke in the distance then knowledge of the concomitance NSM p 88

a perception actually present and the result of past perception[1] The second premiss again must be made an attribute inherent in the first if there is to be any result for the middle term or reason must be brought into direct connexion with the subject[2] to be proved if there is to be any inference It is not enough that the invariable concomitance should be made an attribute of the reason as in fact of course it is true that the reason and consequence are invariably connected But the mere fact is not enough for inference There the knowledge of the concomitance must be simultaneous with the perception of the smoke on the mountain in other terms, the concomitance must be an attribute of the perception of the smoke on the mountain and not of the smoke in itself Similarly from another point of view stress is laid on the fact that the subject (*pakṣa* in the new terminology) cannot be a thing *per se* it must be something regarding which there is a desire to establish something else (*sisadhayiṣā*) for only then does it come within the sphere of inference The desire may of course be for one's own sake or for the sake of some one else and it does not matter that we may have the same knowledge from some other source as long as we have the desire to establish it by inference

This recognition of the mental activity of inferring[3] as the decisive feature in inference leads to an important discussion between the older and later schools as to the precise *factor* which is to be deemed the *proximate* cause of inferred knowledge or in other words what precisely is to be deemed the inference as a process The answer obviously depends in part on the meaning assigned to

[1] Cf TS. § 41, with Athalye's note

[2] *pakṣadharmatā* cf TC II 40–41 NSārs p. 6. The reason is styled *liṅga*, *hetu*, or *sādhana*.

[3] Cf the modern doctrine e g Bosanquet *Logic* Book II ch. vii

proximate cause (*karana*) Its sense in the normal use of language is instrument, and therefore one definition of *karana* makes it to be a cause possessing an activity (*vyāpāravat karanam*) that is to say a cause which by means of its function or activity, produces a result Accepting this definition two interpretations of what is the real cause of inferential knowledge are possible In the first place the view which is more or less clearly expressed by Kanada[1] and emphasized in his commentators that the cause is the reason or middle term may be held subject to the correction that the knowledge of the reason (*linga jnana*) must be substituted for the reason (*linga*) This view is however rejected for the obvious reason that mere knowledge of the reason produces no inference it is only knowledge of the reason as existing in the subject and invariably concomitant with the consequence In the stock example mere knowledge of smoke as such or as existing on the mountain yesterday is no ground for the inference of fire on the mountain to-day the smoke is gone and cannot therefore since it has ceased to be become the instrumental cause of anything The other alternative which is the view of the older Nyāya followed by Viçvanātha[2] is to treat the knowledge of the invariable concomitance as the proximate cause assigning to it as its function the reflection (*parāmarça*) which in that case must be regarded as consisting of the knowledge of the presence of the reason in the subject (*paksadharmatajnana*) The more recent theory is that adopted by Çivāditya[3]

[1] iii. 1 14 ix 2. 1 PBh p 201 TA p. 1[7] cf *Pagadarpana* as one view in NV, p. 47 conceivably a reference to PSPM p. 48

[2] BP 66 cf *Tikal agnisambandhasmrt* or that aided by perception of the concomitance as views in NV p. 47

[3] § 146; see NV pp 47 48 when this a ded by recollection of concomitance (*Pagal Tgnisambandha*) is accepted

Gangeça[1] Annam Bhatta[2] and Laugaksi Bhaskara who adopt the view that the cause is that which immediately and always precedes the effect the reflection therefore which regards the middle term as an attribute of the subject and invariably concomitant with the consequence is therefore the cause of inferential knowledge a view which is supported by an appeal to the facts of language the term instrument applies naturally to some material thing which can possess an activity not to knowledge whether of the reason or of the invariable concomitance

The view however, which thus insisted on a mental activity as the essence of inference was not accepted universally the Mimamsa adopted a view more akin to the concept of formal logic which sets the major and minor premisses side by side without insisting on the mental act of combination But this view the Nyaya decidedly[3] objected to and definitely rejected on the simple but conclusive ground that the mere setting together of propositions gave no result and that equally the memory of the concomitance and the perception of the presence of the reason in the subject remained fruitless unless they coalesced in a single mental act

The essence of inference therefore rests on the invariable concomitance (*vyāpti*) between the reason or middle term (*vyapya*) and the consequence or major (*vyapaka*) terms which if perhaps in origin having a real inference[4] are developed as logical for the school abandons any idea of setting out in detail the real relations at the basis of inference But reality[5] underlies inference and we must

[1] TC 2 *vy p v ç s apaksadharma ā Nanam*
[2] TS § 47. [3] NSM pp 86 87
[4] The *vyapaka* need not be more extensive than the *vyāpya* 50 is *vyapaka* of 100
[5] PBh p 201 TC ii 27 ff TR p 65 TK p 11 TS § 44

ask how is the invariable concomitance known? In the first place we must admit that mere observation of concomitance in a special case or a few cases is not enough for logical purposes to attain certainty the knowledge of coexistence must be accompanied by the absence of knowledge of any contrary case i e we must use the *method of positive and negative instances* If a discrepancy can be adduced or is suspected then it must either be shown to be merely apparently an exception or the doctrine of concomitance must be admitted to be conditional (*aupadhika*) and therefore useless for logic If however no concrete case is adduced but it is argued on general grounds that not even all the cases which have been observed though numerous are enough to give certainty of universal concomitance the only reply is to show that a contrary instance is really impossible This may be done by careful examination of the concomitance itself which may prove to be irresistible or it may be shown by the use of the *reductio ad absurdum* (*tarka*)[1] The man who denies that from smoke we can infer fire is confronted with the result that he must contend that there are cases in which smoke is not connected with fire but arises from some other cause, which is contrary to all experience and he is driven to admit that after all we are entitled to deduce fire from smoke So for the moment we escape the danger of arguing in a circle which is obvious if we try to show that it exists because it is found in so many cases since for such an inference as for all others a concomitance is an essential prerequisite and *ex hypothesi* no concomitance has yet been established It is obvious however, that the question is not yet solved for the validity of our indirect proof in the ultimate issue rested upon concomitance

[1] Above ch 1 § 2

in this case a negative one so that the real character of concomitance is as far from solution as ever

The definitive reply to the question of the mode in which a concomitance is known is, therefore, based on the view expressed in Gautama[1] that inference depends on perception but the crude idea which doubtless dominated the earlier view has made room for a more subtle doctrine, in which supernormal or transcendental (*alaukika*) perception takes the place of the simple contact of organs of sense and object When we see any object we see also its generality (*samanya*) including all other possible members of the class thus by this peculiar mental contact (*samanyalaksana pratyasatti*) we appreciate the generality of smoke and of fire Further by yet another contact, whose characteristic is knowledge (*mana laksana*)[2] we realize the universal concomitance of the two smoke and fire so that the moment we see smoke we at once have knowledge of fire as connected with it This is not a process of inference for there is no possibility of the operation of reflection (*paramarça*) in its production and it differs from ordinary perception, as there is not a connexion between the object and the senses in all the times and places in which the former exists The nature of the *reductio ad absurdum* now becomes plain it does not serve to prove or create the knowledge of the universal concomitance, it is only accessory or contributory to remove doubts and to make the knowledge of the concomitance free from uncertainty Nor again is

[1] i 1 5 cf ÇV, pp 68 ff, 200 ff SDST, pp 61 62 Proof by positive and negative instance is applied to every conceivable topic Cf SS v 28 ff Cf B Seal *Positive Sciences of Ancient Hindus* ch vii

[2] Above, ch ii, § 3 Pancanikha is credited in SS v 32 6 with a view suggesting that concomitance is a mental concept imposed on things not an expression of a reality, but the value of so late evidence is minimal The perception of generality is accepted in Mimāṅsā PSPM p 90 Cf NSM, pp 81 ff

the generality which we perceive a mere mental figment in the view of the school of this period, it is an absolute reality [1] but it exists only in the individuals in which it appears and is not hypostatized as something apart from *the individual substances or attributes or activities in* which it resides

The concomitance [2] as we have seen can be either positive or negative and in the normal case in regard to a subject and an attribute it is possible to establish both relations Thus in the judgement, 'Where there is smoke there is fire' we have a positive concomitance to which there is the negative counterpart 'Where there is no fire there is no smoke' The rule of the school to append the examples of both to the statement of concomitance is duly carried out in both cases, a similar case (*sapakṣa*) is a case in which the conclusion i e fire is present but as smoke need not be present with fire a concomitance must be illustrated by something more a demonstrative example (*dṛṣṭānta*) [3] that is one in which not merely fire but smoke is present as in the kitchen The counter case (*vipakṣa*) *does not admit of such duality it includes* all that has no fire and therefore all that has no smoke

In other cases we do not find the possibility of positive and negative concomitance In the proposition 'The pot can be named since it is knowable' the concomitance can be positive only (*kevalānvayin*) since while it is true that 'What can be known can be named' the proposition 'What cannot be named cannot be known' cannot be established, since no probative example can be adduced for it seeing that only of what can be known

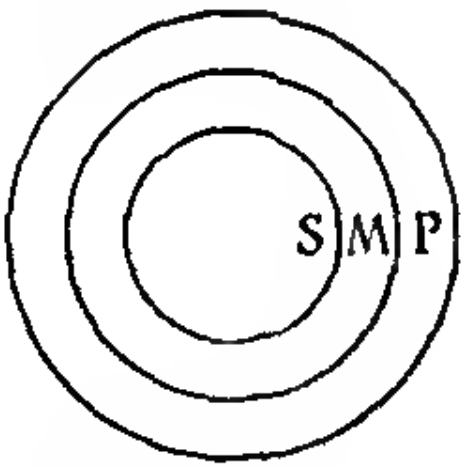
[1] *sāmañjasya vastubhūtatvāt* TB p 31 *sa cākhaṇḍakāsti sambandho vyāptiḥ* ibid p 35 below ch vi § 3 Cf ÇV p 21° •

[2] Not in NS, but in NV p 48 TC ii 735 ff

[3] Only this is recognized as valid for reasoning by PSPM p 51 ÇD p 48

can anything *ex hypothesi* be known On the other hand, in the proposition 'Living organisms have souls, since they possess animal functions', there can be a negative concomitance only (*kevala vyatirekin*), since the proposition 'What has no soul has no animal functions can be illustrated by the case of the pot but the positive proposition 'That which has animal functions has a soul cannot be illustrated since the conclusion has precisely the same extension as the subject and cannot therefore be found anywhere outside it In the case of negative concomitance only it is therefore impossible to adduce any example (*sapakṣa*) in the positive concomitance only it is impossible to adduce any counter example (*vipakṣa*)

The relations thus stated may be illustrated by the accompanying diagram [1]



The circle S represents the subject the circle M the reason and the circle P the conclusion (*sadhya*) The space between the circumference of S and that of P represents the whole field of examples part of which falls within part *without* the circle M, the former alone giving the probative example (*drstanta*) All the space outside P represents the counter examples (*vipakṣa*) In

[1] Jacobi, *NGWG* 1901 p. 466

the normal concomitance which is at once positive and negative (*anvaya vyatirekin*) we have the positive sphere 'Where M there P', and the negative 'Where no P, there no M'. To represent the purely negative concomitance it is necessary to assume that S expands to the dimensions of P, in which case of course M must expand likewise, *there then remains no room for an* example and only a counter example is possible. To illustrate the purely positive concomitance it is necessary to assume that the circumference of P disappears and the possibility of a counter example is abolished.

In place of basing the distinctions of positive-negative positive only and negative only on the concomitance, it is also possible to classify the middle terms on the same principle[1] a procedure which does not differ in substance from the more natural one here adopted of treating the concomitance *as the seat of the distinction*. *Applied to* the inference or the middle term however, the scheme tended to produce results which were early criticized and which though ascribed by Çridhara[2] to Praçastapada would apparently not have been accepted by that author[3]. It is a less serious matter that the positive inference operates with a conclusion which is co-extensive with existence and thus departs widely from the normal form of conclusion[4]. The objections however to the purely negative inference (*kevala vyatirekin anumana*) are overwhelming. All the terms in it have the same extension and thus the essential characteristic of inference, the use of a general principle to demonstrate something disappears as there is no particular case to

[1] TC. ii. 780, 9.

[2] NK., pp. 203, 204, *Muktā* v. 10, n. 3.

[3] At p. 239 however, he seems to admit a *kevalavyatirekī* argument all appear in NSāra p. 6. TR., pp. 70, 80. below ch. iv § 2. NV. pp. 123–32 elaborately justifies all the cases.

[4] NSM. pp. 67 ff. replying to Mīmāṁsaka and Buddhist views.

which the principle can be applied Moreover to arrive at a positive conclusion from a negative is in itself an unusual procedure and if Praçastapada denied that either form was a correct syllogism he had much reason to support his action The Nyaya contends, indeed, that as every negation has a positive opposed to it there is sufficient positive element available to produce a reflection (*parāmarça*) and to induce a result but the effort is plainly unsatisfactory and inconvenient But the doctrine[1] was held firmly against the contention of the Vedanta and the Mimamsa[2] that in such a case there was to be recognized the mental process constituting a separate means of proof called presumption (*arthapatti*) The stock example of this is the inference Devadatta though he is fat does not eat during the day and therefore must eat at night The Nyâya formulates the proposition as a purely negative inference Devadatta eats at night because he is fat without eating in the daytime The positive concomitance He who is fat without eating during the day eats at night cannot be observed but the negative proposition He who never eats is never fat falls under our immediate experience Similarly the *reductio ad absurdum* in its formal aspect is defended by the Nyaya as an example of the purely negative inference

The validity of inference was assailed by the Carvaka school who maintained the impossibility of legitimately establishing an invariable connexion the Buddhist reply rests on an ideal construction as expressed in the concomitance not on a real relation A somewhat similar view is attributed in one version of the *Sankhya*

[1] TC. ii 56ff. 645 ff Nyâya pp 32, 33 23 4ff TR. pp 97 101 Bhâs p 104 Kus. i 19 NSM pp. 56 59 cf KKK i 31 55.

[2] ÇV pp. 230 43 VP i 16 PSPM pp. 60 71 bases presumption on doubt ÇV on inconsistency Keith JRAS 1916, p. 350

Sūtra to Pañcaçikha probably without regard to historic fact as that author was probably anterior to the period of the discussion of concomitance The Sutra itself assumes an innate power in the things which are concomitant Çankara also admits the validity of inference, subject however to the superior authority of scripture which alone gives us absolute truth while the Nyaya contends for the absolute value of inference as based on perception[1]

4 *The Final Form of the Doctrine of Syllogism*

The syncretist school[2] follow without question the doctrine of Praçastapada that there is a fundamental distinction between inference for oneself which is true inference and inference for another which is styled inference therefore only by an analogy Inference[3] for another is the exposition by means of a proof consisting of five members of a thing which has already been ascertained for oneself Or in other words as stated by Dharmottara,[4] the inference for oneself is notional (*jñānātmaka*) as opposed to that for another which is verbal (*çabdātmaka*) though unlike the Buddhists the logicians do not carry the concept to the natural result of recognizing that there is no place in their system for the concept of verbal testimony as a special kind of means of proof Syllogism therefore is inference in a modified

[1] NDS ch i KKA i 181 ff , SDS ch li SS v 27 ff with Aniruddha, BS ii 1 11, *Bhāsya* pp 293 501 NV , pp 190 192 NK , p 200 Kus iii 6-8 NSM pp 76 ff JBRAS xix 51 f

[2] TB , pp 37, 38 TS , § 40 TC ii 689 ff cf ÇV , pp 189 207 , PSPM , p 48

[3] PBh p 231 , NSāra p 5 Max Müller's ascription of the distinction to rhetorical ends is erroneous (*Six Systems* pp 567 ff) , cf NSM , pp 117, 118

[4] NBT , p 21

and secondary sense since it is the cause which produces in the mind of the hearer or reader the knowledge of the universal concomitance which is the true base of inference In the Nyaya view there is an essential distinction between the effect of verbal testimony and that of syllogism in the first place the information imparted is accepted without any activity on the part of the hearer In inference as communicated by the syllogism the hearer must perform the necessary mental operation which the teacher has already performed and which he now aids by syllogistic exposition the hearer to perform for himself There can therefore be no vital distinction in principle between inference and syllogism any inference can be thrown into syllogistic form for one's own satisfaction if desired and it must be so treated if it is to be communicated to another The difference therefore reduces itself to a difference of aspect the one deals with the process of inference the other with its formal expression or as Çivaditya[1] has it the one is characterized by substance (*arthanupatva*) the other by sound or words (*çabdanupatva*)

Syllogism which bears the name *anuma* then consists of a collection of propositions arranged in due order or in the formal definition of Gangeça[2] is an exposition which produces a verbal knowledge whence arises in the hearer the knowledge of the invariable concomitance and of the presence of the characteristic in the subject knowledge which is the last cause of inferential knowledge The number of members remains fixed at five as in Gautama with the traditional names of proposition (*pratijna*) which states the subject with the conclusion as an attribute, reason (*hetu*) which ascribes to the subject the middle term which serves as the means of

[1] SP, § 151

[2] *TC II 601, 602 For Anumana as reasoning generally cf NV on I 1 1*

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[1] SDS ch. i. KKh. i. 181 ff. SDS ch. ii. SS v. 2 ff. with Anirud tha. BS. i. 1. 11. *B. sat.* pp. 293, 561. NV. pp. 190, 192. NK. p. 230. Kus. i. 1. 6. 8. NSM. pp. 6 ff. JBRAS. xix. 54 f.

[2] TS. pp. 37, 38. TS. § 45. TC. ii. 689 ff. cf. ÇV. pp. 18, 19, 20. PSPM. p. 48.

[3] PBh. p. 231. NSara. p. 5. Max Muller's assertion of the distinction to rhetorical ends is erroneous (*Six Systems* pp. 567 ff.) cf. NSM. pp. 117, 118.

[4] NBT., p. 21.

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[1] SP, § 151

[2] TC ii 691, 692 For Jaya as reasoning generally cf NV iv 1 11

connecting it with the conclusion, example (*udaharana*) in which the concomitance is given in full with an example either positively or negatively, the application (*upanaya*) in which there is attributed to the subject the middle term characterized as being a member of the concomitance and the conclusion (*nigamana*) in which it is declared that the consequence is an attribute of the subject. The purpose of the five members is stated formally[1] to be to teach the knowledge of the subject the syllogistic mark the knowledge of the concomitance, the knowledge of the syllogistic mark as an attribute of the subject and that there is nothing opposed to the final result reached in the conclusion. In its typical form the syllogism is thus exemplified:

The mountain is fiery
Because of smoke
Where there is *smoke there is fire as in a kitchen or*
Where there is no fire there is no smoke as in a lake
And so (i.e. provided with smoke which is invariably accompanied by fire) is this (mountain)
Therefore is it so (i.e. provided with fire).

In the example[2] now misnamed the concomitance may be expressed in two ways either as given above or in the adjectival form Whatever has smoke that also has fire or Whatever has the absence of fire that has also the absence of smoke. The latter mode of expression is the more frequent in harmony with the tendency of the language to nominal expression. The *application* and conclusion in Sanskrit are framed in the enigmatic *tatha cayam* and *tasmat tatha* the historic ground of which we have already seen. The scheme which is normal must be modified slightly for the purely positive and the purely negative inferences since in these only

[1] Cf. NBh. p. 45.
[2] TC. i. 740 ff. NSara pp. 12, 135–8. TR. p. 180.

one form of concomitance can appear under the example and in the latter a negative is necessary in the second last member of the syllogism [1]

The characteristics of the syllogism are obviously not without relation to the nature of the Sanskrit language The preference carried out to the full extent of a positive result is rendered easy by the fact that every proposition can be thrown into a positive form by the simple expedient of using the qualification of non existence (*abhāva*) and saying that the mountain possesses absence of fire in place of saying that the mountain is not fiery Similarly no hypothetical result is necessary as we have seen the concomitance can be expressed in the form of two correlative clauses but it can be easily and is more frequently expressed in adjectival form The subject is capable of wide extension thanks to the power of the language, where a thing is not a convenient subject, a place or time may be converted into one But the subject must either be individual [2] or a class denoted by a class name and capable of being considered as a single object If a number of things do not form a real class [3] there cannot be any single judgement about them, there can only be a series of judgements arising from a series of independent inferences regarding each individual

An inference, again as we have seen must correspond to reality, and there can be no formal correctness, as opposed to real representation of truth This demand excludes partial or in the school terminology contingent (*aupadhika*) judgements, which would not correspond to

[1] Jacobi NGWG 1901 p 470, says in the fourth and fifth members but this would give a negative conclusion cf NSāra pp 7, 108, 110 TR pp 5, 7 The negative form is sometimes adopted however, e g TB, p 39, cf NBh p 43 Colebrooke, i 315 316 *Padartha ratnamālā* p 54

[2] NS ii 2 66. [3] Below ch vii § 3.

reality for in the Nyaya view the knowledge that some S is P is not true knowledge which would require knowledge of exactly what S were P

The similarity of the syllogism of the Nyaya to that of formal logic is as obvious as the dissimilarity,[1] and the cause of the difference is plain The Nyaya syllogism *represents the form developed in discussion* The proposition which heads it represents the starting point without something to represent the object of a desire (*akanksa*) to obtain information no discussion can begin The reason is the answer to the question why the proposition is asserted the example, or rather the statement of concomitance, replies to the question why the reason is sufficient to produce the conclusion the general statement being made clear by an example It remains then only in the two last members of the syllogism to apply the general rule to the particular case and then to express the conclusion which thus appears at the end of the syllogism not as a mere idle repetition but as the assurance of a reasoned conclusion What is remarkable however is the fact that the example remains almost to the last an essential part of the system indeed in practice it is the example which is given rather than the formal statement of concomitance it remained for Laugaksi Bhaskara in his comment the *Nyayasud Dantamanjari pralasa*[2] to say that the use of the example is conventional and not essential

While in practice the Nyaya syllogism is frequently reduced to the first three members the third in the mere form of the example as in The mountain has fire because it has smoke like a kitchen', the Mimansa formally reduces the number to three namely the first set of three, another view accepted the second third

[1] Athalye TS pp. 236 ff. 265 ff [2] Ibid p 281

and fourth members as adequate while the Vedantin was satisfied either with the first or the last three[1] The later Buddhist view accepted as necessary only the third and the fourth (*udaharana* and *upanaya*) Dharma kirti's[2] view differing from that of Dignaga,[3] treats the proposition and the reason in which the example is included as sufficient for inference The Vaicesika agreed with the Nyāya though the tradition of the distinguishing names given by Praçastapada was preserved

5 *Analogy or Comparison*

The Nyāya school[4] and the authorities of the Nyaya Vaiçesika with the exception of Çivaditya treat analogy or comparison (*upamana*) as a third means of proof, the establishment of something unknown through its similarity to something already known The stock example of the process is already given by Vatsyayana, a man who has never seen a buffalo is told by a forester, who as an expert is worthy of credence that it resembles a cow On entering a woody region he sees a strange animal whose shape reminds him of a cow, and there comes to his remembrance the name buffalo taught by the forester The essence of the process involves both the knowledge imparted by the forester, and the perception of similarity in the object presented, and there is a direct divergence of opinion between the ancient and modern schools[5] on the part played by these two factors

[1] VP p 14 TC ii 689 n PSPM p 49 ÇD p 44

[2] NB p 118, cf NBT., p 90

[3] His acceptance of these members is criticized, NV, p. 141

[4] NS i 1 6, ii 1 44 8 TC iii 1 101, TA, p 20 TR. p 45 TK, p 16 TS, § 58 BP 79 60 TR. pp 85 94, cf ÇV pp 222 30, SDS[8], p 70

[5] NKoça, p 147, *the first view in* NBh pp 21 22 *the latter* NV, pp 60 61, NSM, pp 20-3 follows NBh

in the production of the result The older view holds that the immediate cause of the knowledge obtained by comparison is the verbal knowledge given by the forester, while the perception of resemblance is but an accessory cause of the result The modern school inverts the relationship, thus laying greater emphasis on the similarity which lies at the bottom of the process but without fundamentally altering the view of the process. Similarity, however is not to be deemed the only cause of knowledge of this kind, dissimilarity or a peculiar property may serve the same end thus a man may recognize a camel because, unlike a horse it possesses a humped back and a long neck or a rhinoceros by the single horn which adorns its nose

There is disagreement also between the ancient and modern schools as to the precise nature of the judgement in which the process of comparison results The older view, held also by Keçava Miçra Laugakṣi Bhaskara and Annam Bhatta gives the judgement as an assertion that the animal perceived bears the name buffalo The more recent opinion of Viçvanatha treats it as a recognition that the thing seen is an individual of the species buffalo, and this accords with the fact that the result of the experience is to enrich the subject of the experience with the recognition by its name of a new animal species

The weakness of the Nyaya concept was not ignored by the rival school Vacaspati Miçra[1] in expounding the Samkhya doctrine which does not admit comparison as a separate means of proof analyses the process and proves that there is nothing permitting of the setting up of comparison as a special means of attaining knowledge The instruction of the forester falls in the sphere

[1] *Sāṅkhyatattvakaumudī* 5 cf PSPH p 69

of verbal knowledge[1] as a means of proof, similarity is recognized by perception and inference accounts for the rest The Vaiçeshika school include comparison in inference[2] the syllogism runs 'This object is to be styled buffalo, since it is like a cow and whatever is like a cow bears the *name buffalo*' The reply of the Nyāya[3] is an appeal to experience which shows that in ordinary life judgements of comparison are formed without going through the process indicated a reply which shows a complete inability to distinguish between a logical and a psychological analysis, and to the conservatism of the Nyāya rather than any other cause must in all likelihood be attributed the maintenance even in the latest state of the school of a distinction between inference and comparison as fundamentally different modes of proof The whole subject receives elaborate discussion by Udayana[4] who rejects the Vedānta and Mimānsā *defence* which regards the instrument in comparison as the cognition that this animal is like a cow and the conclusion as the judgement 'The cow is like this buffalo He defends comparison on the ground that it implies more than verbal testimony which only teaches us that the term buffalo' is applicable where likeness to a cow is found comparison on the other hand gives us the knowledge that the term buffalo applies to a species which we comprehend from perceiving a specimen in quite a different manner from our previous knowledge based on verbal testimony Comparison therefore teaches us the direct signification of a word it does not teach anything about the existence or non existence of anything hence

[1] In NSara pp 30 2 2'2 37 it is reduced to verbal testimony
[2] VSU ix 2, 5 [3] *Nyāyasūtra* p. 110.
[4] Kus iii 8-12 cf TC iii 40 ff. TR. pp 9° 4 the Mimānsā (PSPM, p 68) makes likeness a separate category a view refuted both in SS. v 94-6 and by Kumārila

if there is an attempt to prove the non existence of a creator by the comparison Whatever is like the *omniscient individual soul is not omnipotent and this* being which is like the individual soul is what is meant by the name God the reply is that the use of comparison as means of proof in this way is invalid

In the *Nyaya Sutra*[1] itself the case for comparison is defended against a difficulty made as to the possibility of argument from mere similarity by the statement that the reasoning is based on recognized and patent similarity Against the argument that it like inference, leads to the establishment of what is not perceived by means of what is perceived it is urged that it is the perception of *the buffalo which leads to the result of the* comparison, and that the verbal expression of a comparison diverges from that of an inference whence the difference of the things follows

[1] i 1 44 8 NBh pp 90 91 NV pp 98-60 Cf NKK i 819 ff

CHAPTER IV

LOGICAL ERRORS

1 *The Origin and Development of the Doctrine of Fallacies*

THE treatment of fallacies in both the *Nyaya Sūtra* and the *Vaiçesika Sūtra* is brief and simple standing in curious contrast to the elaboration of this topic by the later texts Fallacies rank as one of the categories of of Gautama,[1] but in accordance with the lack of development of any theory of the true nature of inference there is no attempt to explain the reasons underlying the classes of fallacies enumerated Naturally enough, the commentators find in the list the prototype of the scheme which they recognized in the contemporary syncretist school but it is difficult to believe that this view had any legitimacy Of the list of five given the first and second alone are named with familiar terms the first is *savyabhicara* discrepant, which is defined as a reason which leads to more conclusions than one (*anaikantika*) and this definition applies to the form of fallacy throughout its history The second is the contrary (*viruddha*) which is marked by the fact that the reason leads to a result opposite to that which is established, and it also—*though with* change of sense—passes *into* the later terminology The third *prakaranasama* seems by its literal sense 'equal to the question', to mean a reason

[1] i 2 4 9, cf TR, pp 216 ff

which provokes the very question which it was intended to answer, the later view classes it as equivalent to the counterbalanced reason (*satpratipakṣa*) but with doubtful propriety, for it may equally well be equated to the contradicted reason (*badhita*) or more probably differ from either[1] The third form styled equal to the conclusion (*sadhyasama*), is explained as one in which the reason is as much in need of proof as the conclusion later it is classed among the unreal reasons (*asiddha*) The last is that for which the time has gone by (*kalatita*) on one interpretation which Vatsyayana rejects it applies to a fault in the form of the syllogism when the reason is adduced in the wrong place in the order of propositions This interpretation however is open to the objection that mere formal order is not essential to the meaning of a Sanskrit sentence and that the misplacement of any member of the syllogism is described in the Nyaya as falling under a special form 'the untimely' (*apraptakala*) of the category styled Occasions for Rebuke' (*nigrahasthana*)[2] The accepted explanation,[3] however is hardly easy to believe It is based on the view that an effort is made to argue the abiding character, and therefore eternity of sound from the fact that it is manifested by union (e g between a drum and the rod) just as colour, whose existence is admitted is manifested by union with light The fallacy lies in the fact that the manifestation of sound is not due to the union but takes place at a subsequent moment (*kalatita*) after the union has ceased The later doctrine forces it into the category of contradicted reason but manifestly without plausibility Indeed in no part of Gautama's

[1] Cf NBh p 53 NV pp 1 3 1 6.
[2] NS v 2 11
[3] NV p 177 NBh p 54 NVT gives the later view that it = *badhita*

system is there more clear proof of the lack of an authentic tradition of his meaning unless perhaps in the confusion as to the significance of the three kinds of inference which he recognizes

The case with Gautama is very different from that with Kanada[1] The doctrine of Kanada as now restored to the text of the Sutra is perfectly plain it states a definition of a fallacious reason or non reason (*anapadeça* in his terminology in which *apadeça* replaces *hetu*) as that which is unproved (*aprasiddha*) that is which is not shown to be in invariable concomitance with the consequence Of the fallacious reason two species are mentioned the unreal (*asat*) and the doubtful (*sandigdha*), which correspond accurately enough to the later *asiddha* and *anyabhicara* The examples given are for the unreal the argument. Since it has horns it is a horse for the insufficient[2] reason Since it has horns it is an ox A horse of course is not horned but there are other animals besides an ox which are so adorned As the traditional text stands this clear outline has been brought into confusion by an interpretation which may probably enough be little if at all anterior to Praçastapāda himself[3]

2 *Dignāga and Praçastapāda*

The evidence already adduced in the account of the development of inference gives ground to suppose that Dignaga can claim to have enunciated the principle of invariable concomitance as the fundamental principle of the syllogism The investigation of this question

[1] iii 1 1–17

[2] *anaikāntika* evidently = *sandigdha*

[3] *aprasiddho napadeças asan sandigdhas ca* is the original text, Praçastapāda (p. 201) read it as one Sūtra.

inevitably led to the exposition of the conditions which must mark the middle term if it were to serve the purpose for which it was destined, and the *Nyāyapraveśa*[1] lays down the three essential conditions in explicit terms The whole of the subject must be connected with the middle term, all things denoted by the middle term must be homogeneous with things denoted by the major term, none of the things heterogeneous from the major term must be a thing denoted by the middle term Dharmakirti in the *Nyayabindu*[2] reproduces the same rules for the three characteristics of the middle term, it must exist in what is to be inferred (*anumeje sattvam eva*), it must exist in things only which are homogeneous with the major term (*sapakse*), and it must not exist in things heterogeneous with the major term (*vipakse*) The division of fallacies in both is based on the principle that if one or more of these rules is violated, there arises a fallacious reason Three classes of such fallacies are recognized by Dignaga the unreal (*asiddha*), the indeterminate (*anaikantika*) and the contrary (*viruddha*) as they are styled by Dharmakirti who follows with modifications and improvements the scheme set out by his predecessor Four subdivisions of the unreal reason are recognized when the unreality is recognized by both parties to the discussion, when it is conceded by one party only, when its reality is called in question, and when it is doubtful whether the middle term can be predicated of the subject Of the indeterminate there are six forms when the middle term abides both in the major term and in the opposite, which is the too general middle term of later logic (*sadharana*), when the middle term abides neither in the major nor its opposite the too restricted (*asadharana*) form of later logic, when the

[1] *Med Log* pp 33ff NV pp 58 59
[2] NB, pp 114ff, SDSI pp 41 6

middle term abides in some of the things homogeneous with and in all of the things heterogeneous from the major term, when the middle term abides in all the things homogeneous with and some of the things heterogeneous from the major term, when the middle term abides in some things homogeneous with and some heterogeneous from the major term, and lastly the contrary but not discrepant (*viruddhavyabhicarin*) middle term that is when a thesis and its contradictory are both supported by equally valid reasons The stock example of the last is the argument adduced by a Vaiçeshika to prove that sound is not eternal because it is a product while the Mimāṁsa responds that it is eternal because it is audible Finally there are four[1] subdivisions of the contrary, according as the middle term contradicts the major term or the implied major term or the minor term or the implied minor term Of these the fallacy which is contrary to the implied major term is akin to the contrary but not discrepant, since it depends on the fact that it is contrary to a principle of the school by which it is used and it is therefore termed 'that which cuts across one's principles (*svasiddhāntatyāgakṛt*)' The example given by Dignāga is the argument that the eyes &c. are of service to some being because they are made of particles like a bed seat, &c Here the major term 'of service to some being' is ambiguous its apparent meaning is 'of service to the body', but the implied meaning is 'of service to the soul' But the Sāṁkhya system holds that though things made of particles are of service to the body they are not of service to the soul which has no attributes Hence the middle term contradicts the implied term as understood by the Sāṁkhya

[1] Kumārila (V. Pt. 193–4) clearly refers to this view and the [illegible]

Dharmakirti[1] presents us with the same classification but with a diminution in the subdivisions The four of the unreal reasons remain but of the indeterminate only the first two are kept the too general and the too restricted and the contrary likewise is reduced to two varieties depending on the fact of the existence of the middle term in what is heterogeneous from the major or its non existence in what is homogeneous with the major It is of interest that he recognizes and disallows the two varieties of contrary but not discrepant and that which cuts across one's principles The former he holds not to concern inference at all as it arises from the fact that the two different sides in such a case rest on the authority of scripture and this is for him as in theory it was for Dignāga no true source of knowledge[2] The latter he dismisses because it is included in the general conception of contrary which indeed in the definition of Gautama is that which is contrary to the principles admitted by the reasoner[3]

In the case of Praçastapada *the question is complicated* by the existence of the *versus memoriales* which he cites as embodying the views of (Kanada) Kaçyapa and in which the division of fallacies is based on the conditions for the correctness of the reason for inducing proof They[4] run That mark is the means of inference which is connected with that which is to be inferred is known to exist in that which is accompanied with that

[1] NB pp 111 lo so the Mim sā ÇV p 217 For the unreal see ÇV pp 197 193

[2] NB p 11o It is rejected with the other two in ÇV p 193

[3] NB p 113 NS 1 2 6

[4] p 700

anu eṣa sa bad ll an pra lddha ca tada e
adabl e ca v s y e a tal l aga ran m pakam
e par a ra e yat syā l el e a de ta jena tā
t ruddh s ddl asa nd g lham al aga Kaçyapo brav t

which is to be inferred and does not exist at all where that does not exist That which departs therefrom in one or two points is declared by Kaçyapa to be no reason as contrary unreal or doubtful The similarity of the statement of the three conditions (*trairūpya*) of the middle term to that in the Buddhist formulation is obvious but it is important to note that the parallelism is not complete as regards the first essential condition In the case of the Buddhist formula this condition is stated as the connexion of the middle term with the subject (*anumeya*) the sense of the latter term being made clear by its definition in the *Nyayabindu* as the thing possessing an attribute (*dharmin*) whose peculiarity is to be known (*jijnasita viçesa*)[1] It is natural to read the same meaning into the *versus memoriales* and this has been repeatedly done[2] but only at the cost of complete disregard of the language While *that which is to be inferred* (*anumeya*) can like *sadhya* in its earlier sense denote the subject of the inference it equally easily and naturally like *sadhya* is employed of the conclusion and that this is here the sense is proved by the expression which is to be accompanied by that for the 'that' (*tad anvita*) can only refer to *anumeya* which precedes it and it is of course common ground that the characteristic of the similar instance (*sapaksa* in the *Nyayabindu* here *drstanta*) is to present the major and middle terms, not the middle term and the subject The apparent objection that thus the reference to the subject is omitted must be recognized but the remedy is not to read[3] into the verses

[1] NB p. 104 this view as in Dignaga is controverted in NV pp. 52 4 where (p. 1?? PBh p 200 seems to be referred to Dignaga s own case is given in *Pudirtham* ... p 13. Cf p 101, n 2

[2] Jacobi NGWG 1901 p 480, Stcherbatskoi *Museon* v 146 S ... p 303 Faddegon *Vaiç System*, p 303. But cf ŞDST p 41

[3] Athalye TS p 252 but cf SBH vi 2? Garbe trans of SS. p. 58 Gañgānātha JI A, NS. i 316.

the qualification that the first condition connexion with the conclusion is to exist in the subject, which of course begs the question The Vaiçeşikas deliberately adopted the view that the knowledge of the middle term was the proximate cause of inference, and were criticized by their opponents precisely because thus they failed to emphasize the element of existence of the middle term in the subject The explanation of their attitude is perfectly simple the three conditions as set out represent a precise statement of the third member of the syllogism, the example (*udaharana*) when completed as it was in Praçastapada's time by the enumeration of the general proposition Of the first part of the example we have a reflection in the first condition the invariable concomitance between the middle term and the major term between smoke and fire Where there is smoke there is fire , the second condition corresponds to the affirmative example of the concomitance of smoke and fire as in a kitchen the third with the negative example of the absence of smoke when there is no fire, as in a lake The reference to the subject is of course implicit the conception of a middle term is essentially relative to a subject on the one hand and a major term on the other In the Buddhist formulation in its turn there would be inadequate reference to the invariable concomitance as a principle if it were not that the middle term is essentially relative to the major and is related to it in the view of Dharmakirti by way of identity, cause and effect or non existence The divergence of emphasis however, is very far from diminishing the probability of borrowing on the part of the Vaiçeşika it is in entire accord with the natural wish of a school, when it has to appropriate fruitful ideas from another to disguise and adapt them in form if not in substance

The impression of borrowing is confirmed by the fact

that Praçastapada or some predecessor, if we admit that the *versus memoriales* were really composed before him thought it necessary to remodel the text of the *Vaiçeṣika Sutra* in order to bring the new doctrine into harmony with the accepted text. The correction was ingenious: the two aphorisms of the original text which as we have seen defined fallacy and set out two classes, were combined into a single clause and read as giving the varied classes of fallacies. But the complication did not end there, for it was not sufficient to Praçastapada to establish three classes of fallacies: he had to assume that the enumeration gave room for the four classes which he himself accepted. The terms of the text as changed gave the old classes of unreal (*asat*) doubtful (*saṁdigdha*) and also *aprasiddha*, a new term while the *versus memoriales* give *asiddha*, *viruddha* and *saṁdigdha* and Praçastapada added the *anadhyavasita* or void reason. To effect a harmony between these views and the Sutra Praçastapada[1] declared the identity of *aprasiddha* with *viruddha* and his new addition regardless of the utter violence he thus did to the text. A later hand[2] endeavoured at least to avoid the incoherence thus created in the Sutra by the interpolation of a word at the end of the second of the two aphorisms which Praçastapada read as one: the text thus gave once more two clauses but in lieu of a definition of fallacy, followed by an enumeration of two classes we have first the statement that the *aprasiddha* is a fallacy, and then that the unreal and the doubtful are fallacies, the absurdity of which is self evident.

Praçastapada[3] himself gives in prose practically the

[1] pp. 238, 239. [2] Jacobi, NGWG 1901, p. 481, n. 2.

[3] p. 201: *yad anumeyenārthena deçaviçeṣe kālaviçeṣe vā sahacaritam anumeyadharmānvite cānyatra sarvasminn ekadeçe vā prasiddham anumeyaviparīte ca sarvasminn pramāṇato 'sad eva tad aprasiddhārthasyānumāpakaṁ liṅgam.* For my interpretation cf. VV, p. 12.

same account of the conditions affecting the reason or middle term the mark must be associated in respect of time or place with the thing to be inferred be found in all or one case where the attribute to be inferred is present and be proved to be non existent in everything opposite from what is to be inferred The slight divergence of wording brings out clearly the essential realism of the system the reason is a reflex of reality At the same time the wording confirms the view that the first condition refers to the relation of middle term and major not of middle term and subject the thing to be inferred is the fire on the mountain not the subject which is not a thing to be inferred but a thing whose attribute is to be inferred from the mark In the second condition a new element appears which forms also the subject of observation by Uddyotakara in his examination of the formulation of the subject of the three conditions of the reason by Dignaga it is expressly recognized that the extension of the middle is not equivalent to that of the major fire may exist without smoke This point the earlier formulation ignored for the simple reason that it was irrelevant to the business in hand the third member of the syllogism must give an affirmative example, and it is irrelevant to note that the major may exist without the middle term

On the basis of the threefold conditions of the reason Prasastapada bases his division of fallacies departure in one or two points brings about the invalidation of the reason to attain the conclusion just as in the Buddhist view Moreover the divisions of the unreal reason are similar to those which were already given by Dignaga from whom he doubtless borrowed them[1] But in the other categories there is a significant variance which can

[1] Stcherbatsko *Museon* v 168 148 58 *et* , Faddegon p 3°2

which the middle term is present neither in the major term nor in its opposite The stock example is the reasoning Sound is eternal, because it is audible Dharmakīrti[1] however, classifies in the same count the *argument which the Nyaya and Vaiçeṣika accept, Living* bodies have a soul, because they have animal functions, which the later theory makes an inference with purely negative concomitance (*kevala vyatirekin*)[2] It is not certain how far Praçastapada would have accepted the classification of these two kinds under the same head for, though he does not actually recognize the classes of purely positive and purely negative inference he appears[3] to admit the truth of the argument Sound is a quality, because it is audible', or Sound differs from other things because it is audible The distinction between the two instances is plain in the first the *major term* eternal is wider in extension than the subject and the middle term which are of equal extension sound alone being audible, in the second, the three terms are all of like extension and in the later view at least the conclusion is legitimate Whether in any case *the too restricted reason* is deemed *doubtful or void* seems little more than variation of terminology designed to mark the independence of the new writer The distinction is the more noteworthy in that Praçastapada himself records an objection to this view in the fact that *Kanada*[4] *in treating of sound* appears to *have* reckoned the too restricted reason as a source of doubt although Praçastapada has not much difficulty in explaining away this seeming obstacle to his theory It is in keeping with his determination to avoid too close

[1] NBT p 79, NB, p 114 [2] NV, p 195
[3] p 239 On the validity of this form of TR, pp 77 78 219 PSPM p 47 d sallows it Cf also Faddegon, pp 307 323
[4] ii 2 21 3 [5] p 239 NK, pp 245 246

Laugakṣi Bhaskara more generally as that which is the object of a knowledge which renders impossible the inferential judgement or the process which leads up to it the latter phrase being wide enough to cover what is held on any of the theories to be the proximate cause of inference whether knowledge of the middle term knowledge of the concomitance or the reflection (*parāmarśa*) Annam Bhatta[1] insists on requiring that the knowledge should be correct since otherwise in the familiar reasoning *The mountain has fire because it has smoke* a fault might be suggested through the erroneous perception of the absence of fire on the mountain

The classes of fallacies are also increased to five an artificial symmetry designed doubtless to imitate the Buddhist system which recognizes three conditions and three sets of fallacies Presumably the increase in the number took place first in the classification of fallacies and thence was extended to the number of conditions The five classes are in the order of Gangeça[2] the discrepant (*savyabhicāra*) which is also styled indeterminate (*anaikāntika*) the contrary (*viruddha*) the counterbalanced (*satpratipakṣa*) the unreal (*asiddha*) and the contradicted (*bādhita*) but they may be examined in the order of the Buddhist list with the addition of the two new members of the series

1 The indeterminate or discrepant[3] which is styled in the Vaiçeṣika terminology the doubtful (*saṃdigdha*) lies in the fact that one or both of the second and third conditions is violated whence the conclusion ceases to

[1] TS § 59

[2] TC i 760 ff NSā p 7 keeps Gautama's names but adds a sixth TR *l c* follows Gautama KKK i 365 ff refutes them all

[3] SP § 160 TC i 84-841 TV p 19 TB pp 44 107 108 TK pp 13 14 TS § 53 BP p 4 Keçava omits the third form so also TR pp 217 20 NSāra pp 7 10 123-6 makes eight varieties the first two are in NV p 1 3 PSPM p 46

possess any certainty and remains therefore an object of doubt It falls into three species

(1) The too general reason (*adharana*) is found not only in the similar instances but also in the opposite instances the possession of horns does not make an animal an ox nor has the mountain fire because it can be known

(2) The too restricted reason (*asadharana*) on the other hand offends against the second condition for it occurs nowhere outside the subject itself Its absence from the opposite instances or counter examples tends to establish the validity of the conclusion but its absence from the similar instances or examples tends to invalidate the result which remains therefore a matter of doubt Sound is eternal because it is audible' is the standing example, as we have seen the fallacy is distinguished in the modern school from the purely negative inference by reason that in the fallacy the major term has greater extension than the other terms while in the inference which is valid all three terms have the like extension

(3) The reason which does not subsume (*a upasamharin*) is that which is alleged of a subject which is so extensive as to permit neither of examples or counter examples as in 'All is eternal because it can be known The nature of 'all forbids the possibility of any universal concomitance and thus prevents either the second or the third of the conditions being complied with Or equally well the opposite argument can be used 'All is transitory because it can be known The modern school [1] object that the individual things of this world might serve as examples and therefore define the fallacy as one in which there exists only a positive connexion between reason and consequence a definition which is open to the

[1] Athalye TS pp. 303 304

retort that it covers the case of the purely positive inference which the modern school accepts as valid as does the older school, as in 'All can be named, because it can be known'. There exists, however, a clear difference between the last proposition and those quoted to illustrate the fallacy: in the latter there is a real ground of connexion between naming and knowledge, in the former it is not so, and the test of reasoning is always in the school correspondence with reality.

II. The contrary reason (*viruddha*)[1] is one which serves to prove exactly the opposite of the thesis it is adduced to establish. It thus does not exist in examples, but does exist in counter examples, and so violates the second and third conditions alike. Sound is not eternal, because it is a product, nor is an animal a horse because it has horns.

III. The unreal reason (*asiddha*)[2] falls into three species in accordance with the three factors involved in the reflection (*parāmarça*) which brings about inferential knowledge, the subject, the relation of the middle term

[1] SP., § 159, TC., i 842 64, TA., p 19, TB., pp 44, 107, 108; TK., p 14, TS., § 54, BP 74, NSāra, pp 7, 9, 119 23, gives eight varieties, TR., p 224, gives the same definition as NSara and TB In NB, NV i. 2 6, it still is really a *badhita*, the new sense is in NVT

[2] SP., § 158; TC ii 897-937, TA., pp 19, 20, TB., pp 42 4, 102-6, TK., pp. 14, 15, TS., § 56, BP 75-7. NSāra, pp. 7-9, 113-9, gives fourteen divisions (twelve in commentary) defining it as *anicatapakṣavṛtti*, TR., pp 223 8, follows Udayana's *Lakṣanamāla* (according to the commentary) in the threefold division, but adds a fourth class of *ajñānāsiddha* (in three varieties) and mentions five of Bhāsarvajña's as subvarieties. Both record the more general divisions of *ubhayāsiddhi* and *anyatarāsiddhi*. NV., p. 177, has a triple division with divergent names for (2) and (3); but NVTP recognizes the new names, while NVT has four classes (*svarūpa, ekadeça, āçraya, anyathā*); PBh., p. 238, has *anumeya, tadbhāva*, and two varieties of what is equivalent roughly to NB., p 112, ll 2-7, where three varieties occur, NB has also *dharmy-* and *sandigdhāsiddha*

There are two forms of this class in the first the concomitance simple does not exist, in the second there is concomitance but only a conditional (*upadhika*) one which is of no value for inference In the first case we have such inferences as 'The mountain has fire because it has golden smoke', for the addition of golden destroys the concomitance since golden smoke does not, in the Indian view, exist[1] Even if we substitute black for golden the older school denies the validity of the inference, though the modern school admits it, apparently on the ground that otherwise it might be thought that the quality black formed a necessary part of the concomitance which is between the smoke and fire as such More interesting is a third example the reasoning 'Sound is momentary, because it exists', which represents the Buddhist view is rejected because it involves the proposition that all which exists is momentary, and the Nyāya Vaiçeshika insists that a sound lasts for three moments that of its production and that of its destruction with that intervening between them

The conditional concomitance[1] is illustrated by such a case as the argument, 'The mountain has smoke, because it has fire' The proposition is conditioned by the fact that there is no universal concomitance between fire and smoke, but only between fire produced from wet fuel and smoke Laugākshi Bhāskara and Annam Bhatta treat this as a fallacy, and indeed Annam Bhatta's definition of the third form of the unreal reason seems strictly speaking to cover the conditional concomitance only On the other hand there exists a view which declines to accept such a case

[1] On *upādhi* see TC II 294 406; TR pp 43 44 106; Th pp 15 16; TSD, § 58, BP 135-40 NSU II 2 14 TR pp 61-71 Max Müller's view (*Six Systems*, pp 570 572) is clearly wrong Cf NSM pp 110 16

as fallacious since it does not fulfil the requirement of a fault in reasoning, namely that it should prevent the taking place of the reflection (*parāmarśa*) In truth if the condition is borne in mind it is possible to reason accurately Thus we can reason correctly, 'If the lightning were to fall on a heap of hay, it would give out smoke', since in such a case the condition for the truth of the concomitance would actually be verified Thus is an interesting example of the effort to extend the process of inference beyond the bounds imposed upon it by the demand that nothing save an absolutely universal concomitance should be taken as a basis of reasoning

IV The counter balanced reason (*satpratipakṣa*)[1] is one for which there exists another reason which proves the contrary of the consequence. The later texts apply to it also the term *prakaraṇasama* taken from Gautama equating the two ideas by interpreting the *prakaraṇa sama* as a reason which, though intended to give a certain proof, leaves us with the desire for an argument to establish the conclusion and hence is called 'like an argument' (*prakaraṇasama*) This form of reason differs from the contrary, because in the latter the reason in itself proves the opposite of what was intended, while in this case the reason is simply rendered inconclusive by the existence of an argument opposed to it of equal weight In the contradictory reason (*badhita*) again, the consequence is in flat contradiction with the truth and thus contradiction may be proved not merely by argument, but by direct perception or other recognized

[1] SP, § 163, TC II 86, 96, TL, p 19 TL, pp 44 45, 108, 109 TK, p 14 TS, § 52 BP 72, the view of Nāra pp 7 12, is refuted in TR, pp 231-3, when the *viruddhāvyabhicārin* appears as a variant of this form, while Bhāsarvaj a seems to reduce it to an *anyatarāsiddha* (otherwise the commentary, pp 133-5 The identification with *prakaraṇasama* is in NVT f 2 9

means of proof Again, to make this case of fallacy there must be equal weight in the two reasons which can be opposed in the triple division suggested by Keçava Miçra the first two cases where the first or the second is of prevailing weight cannot be properly reckoned here If there is scriptural authority for either argument, it must prevail and the reason would become not counter balanced but contradicted

V A reason is said to be contradicted (*badhita*)[1] in the definition of Keçava Miçra when by means of another proof perception or otherwise, it can be established that there is present in the subject the negation of the consequence which the argument is intended to establish It can be illustrated therefore by such a proposition as The fire is cold because it is a substance, like water while for the counter balanced reason we must have resort to such arguments as 'The mountain is fiery because it has smoke opposed to The mountain is not fiery because it is bare rock With the contradicted reason the later school identifies the *kalatita* fallacy of Gautama on the ground that it is inopportune and intempestive (*kalatita*) to adduce a reason of this sort to prove a conclusion which other evidence has already established the contrary conclusion

From this general classification and description none of the syncretist writers departs in substance though Keçava Miçra omits entirely the non subsuming variety of the indeterminate reason Çivaditya[2] however increases the number of classes to six by accepting as a separate class the void reason (*anadhyavasita*) of Praçastapada which he defines much as in that writer

[1] SP § 161 TC II 933 ff TA p 90 TB pp 44 45 109 110 TK p 15 TS § 67 BP 78 NSāra pp 7 11 TR pp 229 31

[2] SP § 161 The NSāra pp 7 10 has the old five of Gautama and the void reason as a sixth the last TR pp 235 236 rejects

showing that at his early date the fusion of the Vaiçeşika views was not yet completely carried through The earlier Vaiçeşika too had not recognized the classes of counterbalanced and contradictory reasons as such Çankara Miçra [1] tells us that they were interpreted into the text of the Sutra by a Vrttikara or writer of a commentary, but the identity of this author is wholly unknown There is of course a rough distinction between the new classes and the old but it can hardly be contended [2] that the Vaiçeşika school acted on an attempt to distinguish between formal and material fallacies in omitting them for, as we have seen there were approximations to these classes in the classification of Praçastapada Thus the contradicted reason figures in Praçastapada as part of the contrary (*viruddha*) in the shape of the reason contradicted by the text of the school (*agamabadhita*) and this can be traced further back to the antinomic reason (*viruddhāvyabhicārin*) of the Buddhist logic The counter balanced reason (*sat pratipakṣa*) again figures with Praçastapada as part of the void reason (*anadhyavasita*) and again can be traced to the antinomic head of the Buddhists Nor in truth is it really possible to attempt a serious distinction of formal and material in fallacies, since the Indian logic is never formal but always realistic

It is characteristic that there should have been made a serious effort to induce the categories set up by Gautama to enter into the new division nor is it at all unlikely that the fivefold classification was stereotyped precisely in order to suit the fivefold classification of the *Nyaya Sutra* The efforts to equate *prakaranasama* and *satpratipakṣa*, *kalatita* and *badhita* have been mentioned, the compilers ignored the fact that Gautama s

[1] VSU iii 2 17 [2] Ali alye TS p 800

contrary (*viruddha*) is really equivalent to contradiction by scripture (*agamabadhita*) or Dignāga's *istavighatakrt*, and equated it with the later *viruddha* The *sādhya sama* was equated with the inneal reason,[1] but the divisions of that head may be traced in part through Praçastapada to the Buddhist logic though the details are dubious[2]

4 *Other Logical Errors*

On the theory of the Buddhist logic a train of reasoning is fallacious not only if the middle term is defective but also if the subject matter or thesis cannot be sustained that is if it is refuted in advance by the proof of the opposite or if the examples which serve to show the correctness of the middle term are not valid being badly chosen On this basis are set up fallacies of the thesis (*pakṣabhasa*) and fallacies of the example (*drstantabhasa*) details of which we have both from Dignaga[3] and from Dharmakirti.[4] It is significant that Praçastapada[5] accepts the whole theory, and follows closely the Buddhist model even to the extent[6] of closely copying but with characteristic variation of phraseology the description given of the defective thesis The doctrine

[1] NV p 177

[2] Stcherbatsko s views (*Museon*, v 163 1 0) are open to doubt The decisive approach to the modern view is in NV, pp 176 177

[3] *Med Log* pp 90 ff., 96 ff , Sugihara *Hindu Log*, pp 59 ff 68 ff

[4] NB pp 111 116 ff [5] pp 234 ff 247 ff

[6] *avirodhi* (p 231) replaces *an rūkṣtah* NB., p 110 Stcherbatskoi *Museon* v 158 Dignāga's definition (cf NV, pp 119 120) was *sadi jatvenepsitah pakṣaḥ viruddhārth a rukṣtah* the last half being condemned by NV Subandhu (not Vasubandhu) seems to have defined it as *pakso yaḥ sadhay tum iṣṭaḥ* (NVT, pp 181 186) Gangānāti a Jhā's view (NS i 441 n, 454 n) that he is the author of the *Vadavidhāna* (NV pp 120 156) is improbable in view of the positive evidence of the Tibetan trans JRAS 1914 pp 601 602

however, is foreign to the Nyāya[1] or the Vaiçeṣika or to the combined school, and only the Jains[2] agree with the Buddhists and Praçastapada in recognizing it The reason is clear as Uddyotakara[3] and Vacaspati Miçra[4] plainly say, if the theses are to be deemed as in themselves true or false, there would be no purpose served in recourse to the middle term and an examination of the fallacies adduced in the Buddhist school shows that the division involves useless repetition Vatsyayana and the schools after him accept clearly the doctrine that the thesis is neither true nor false in advance, it is a subject of doubt which is resolved by the use of the middle term, or, as Annam Bhatta[6] has it, the subject (*pakṣa*) is that which possess the conclusion in a doubtful form (*sandigdhasadhyavan*) So little, indeed, did Praçastapada impress the doctrine he had borrowed on his school that Vacaspatimiçra[7] ascribes the fallacies of thesis and example to the Buddhists without hinting that he knew that Praçastapāda himself had adopted the principle The possibility of borrowing[8] by Buddhism must therefore be entirely negatived[9]

On the other hand the syncretist school[10] treats errors in the definition (*lakṣaṇa*) as being closely connected with errors in the reason or middle term A definition may be too general (*ativyapti*) and include the characteristics which are found in other things than the subject of the definition as in The cow is a horned animal This form can be compared with the unreal reason in respect of concomitance (*vyapyatvasiddha*) or

[1] Save Bhāsarvajña NSāra pp 13 14 138 44 cf PSPM, p 50
[2] Siddhasena, NA 21 24 Māṇikya PMS vi 12, 40
[3] NV pp 116 20 [4] NVT p 3[a]
[5] NBh i 1 1 [6] TS § 49 [7] NVT p 239
[8] Jacobi NGWG 1901 p 483
[9] Stcherbatskoi *Muséon* v 15[c] 8
[10] TB, p 110, 111, TA, p 21, TSD, § 3

the too general form of the indeterminate reason Or a definition may be too narrow (*avyāpti*) as when a cow is defined as tawny, and other coloured cows are excluded Or the definition may be impossible (*asambhava*) as when the cow is defined as whole hooved, both this and the preceding being varieties of the unreal in respect of the substratum A correct definition is negatively defined as one which is free from any of these three faults and more positively by Vatsyayana[1] as an attribute which differentiates what is defined from all things other than itself This characteristic results in the definition of the schools being largely reduced to the statement of the specific difference possessed by any thing and in many cases definition takes place by negation of certain attributes within a wider conception[2]

In addition to fallacies Gautama devotes three other categories to logical errors but the later texts treat them with as scanty consideration as they deserve The first is the fraud or cheating (*chala*) which consists merely in the giving of false interpretations to the words of an adversary in discussion The forms of this device are three a word may be understood in the sense which appertains to another word of the same form as for instance *nava* may be meant as new and interpreted as nine Or the word may be given too wide a sense (*sāmānyacchala*) or a metaphorical expression may be interpreted literally (*upacārachala*)[3]

The second class consists of futile objections (*jāti*)[4] of

[1] NBh 1 1

[2] TR pp 70 6 shows that a definition is really a purely negative inference

[3] NS i 2 10 1 with commentary NSāra pp 16 17 161 6 TB p 111 TSD § 81 GSAI xix 342 ff NSāra pp 16, 17, 161 6 TR pp 239-46

[4] NS v 1 NSāra pp 17 93 167 91 TB pp 111 112 TSD § 81 SDST, pp 61 7 TR, pp 247-317

plea of business or admit a defect on his own side while criticizing one on the other, or fail to censure an error or censure what is correct or depart from a tenet which forms the basis of reasoning (*apasiddhanta*) while the fallacies proper are naturally included as a specially appropriate occasion for rebuke

These miscellaneous classes have it is clear, for the most part but little direct connexion with logical errors, and fall rather within the sphere of dialectic Strictly logical are only such cases as those of inconsistency with the proposition in its various aspects or the shifting of the reason enunciated in the second member of the syllogism by the use of a different reason in the third member In cases such as the *regressus ad infinitum* (*anavasthā*) the reasoning in a circle (*cakraka*) the *ignoratio elenchi* (*atmāçraya*) and others[1] the errors which occur can be regarded as series of syllogisms partly invalid Nor is it difficult if it were worth while, to show that the various sorts of logical errors can be reduced to the violation of one or other of the five conditions laid down for the correctness of the middle term

From the Nyaya school it is at least probable that the other schools borrowed their criticism of invalid reasoning It is true that the claim has been made by competent authority[2] that the conception of the *regressus ad infinitum* as a means of argument is to be referred to the Sankhya school But already in Gautama[3] the principle is adduced in the discussion of the indivisibility of atoms to which exception is taken on the ground that if each atom is capable of division the process will continue *ad infinitum* which involves a *regressus ad*

[1] Cf KKK. i 218 ff

[2] Garbe *Sānkhya* pp. 157–60 (cf ed ² pp 216 ff.) *contra* Sual *Ind* p 117

[3] iv 2 25

CHAPTER V

THE NATURE AND AUTHORITY OF SPEECH

1 *The Nature of Speech*

THE recognition by the Nyaya and of the syncretist school save Çivaditya of verbal knowledge (*çabda*) as a means of proof imposed upon them a careful survey of the nature and origin of language in which however their freedom of thought was strictly limited by the presuppositions which they inherited Each word has they hold [1] a significance (*çakti*), which is the convention (*samaya*) made by God that such and such a meaning should be understood from such and such a word All language is therefore conventional but the modern school varies the rigour of the ancient by admitting in the case of proper names the exception that the convention is imposed by human instrumentality while some supporters at least of the older view argued that though the immediate instrument was man yet in giving a proper name the father was obeying the command of scripture to assign a name to his son, and therefore the action was ultimately divine a subtlety which even Viçvanatha rejects Of more value is the further definition of significance given by Annam Bhatta which makes it that relation between word and object which serves to call the object to memory when the word is spoken The nature of significance as the power in

[1] TK p 16, TS § 59 Sk on BP 81, NSara pp 29 209-19

words to convey the sense imposed upon them by convention human or divine is not further elucidated in the Nyaya which rejects, however[1] the Mimansa doctrine of the existence of a special category of power (*çakti*) taking just exception to the multiplication of entities which would result if every capacity of a substance were thus given the rank of a category

Freed from the burden of a binding tradition the Nyaya was able to deal more effectively with the problem of the precise denotation of words To the Mimaṁsa a word denotes the class (*jati*) and the notion of the individual (*vyakti*) arose from necessary implication only an opinion shared by the schools of grammar and rhetoric[2] The modern Nyaya for its part adopted the other extreme view the word denoted the individual concrete object its attributes coming in by implication alone The Vedanta sought to combine the opposing views by a distinction between the express and latent signification of the word which was deemed primarily to refer to the class concept but only to do so in virtue of its acknowledged connexion with the concrete objects included in the class. The Buddhist view was very different faithful to the opinion that the true nature of anything cannot be known but merely its differentia they held that the signification of a word was merely expressive of distinction from other things (*apoha*) To the ancient Nyaya[3] which Annam Bhatta and Viçvanatha follow the word denotes at once the individual object the class of which it is a member and the distinctive property of the class (*akṛti*)

[1] TC iv 1 460 ff , ÇV pp 34 ff SS v 17 TR pp 163 164 quoting the *Prameyakalpalata* PSPM p 90 ib l., pp 64 8 refutes the convention theory

[2] TC iv 1 656 ff Müller *Six Systems* pp 530 ff Pāṇini Sarçana, SBE. ch x PSPM pp 153 6 Çankara BS i 3 28

[3] NS ii 2 60-8 TC i 1 659 ff NBh pp 271 ff NV pp 314 ff

While the meaning of language is conventional the modes of acquiring it are various The Vedanta lays stress on the use of gesture objects are pointed out to the child and the names given Other sources given by the Nyaya include the usage of life in which the child by hearing the same word used in different contexts gradually comes to learn its sense grammar which teaches the meaning of roots, terminations, and cases, dictionaries, instruction by experts, comparison, explanation by synonyms, context and contiguity the former applicable in the case of a word of generic meaning whose precise sense is thus indicated, and the latter serving to make clear the meaning of an unknown word by its proximity to others already familiar

The sense of the words thus acquired is the primary or direct sense as opposed to the secondary of implied signification (*laksanā*)[1] The primary sense however may bear various relations to the etymology of the term It may remain true to its root meaning (*yaugika*) as in 'cooker' from 'cook , it may have a customary sense (*rudhi*), as in *ghata* pot , which even if it is to be traced as held by one school of Indian grammar to a root still bears no obvious connexion with it, or it may without sacrificing its etymological sense be restricted by custom to one only of the objects to which it might apply (*yoga rudha*) as in the case of *hastin* 'elephant' where usage has confined the term 'possessing a hand to one only of the animals which might thus have been styled More artificial is a fourth class (*yaugika rudha*) mentioned by Jagadiça[2] and Viçvanātha which includes words whose sense might be explained equally well either as etymological or customary

[1] TC iv 2 660 ff *cf Padārthatattvanirūpana* p 16.
[2] TA p 21 *cf* TC iv 2 691

The implied sense falls in the view of the ancient Nyāya into four subdivisions in the first the original sense is merged in the implied meaning as in 'the tribunal applauds', in the second the original sense remains, but something further is suggested, as in 'Guard the ghee from the crows', where the command is understood to apply also to other birds, in the third a part of the primary sense is left out, and a part retained, as in the Vedanta doctrine 'That thou art' where 'that' denotes the unqualified absolute, and 'thou' the qualified soul, which divested of its qualities, is the absolute, fourthly by a process of implication on implication, the term *dvirepha*, 'having two r s', originally applied to the word *bhramara*, 'bee' is used of the bee itself This last class is rejected by the modern school,[1] which attributes it to the Vedanta. The modern school differ also from their predecessors in their view of the cause which gives rise to implication, the latter assert that it arises from the inapplicability of the primary sense in the context but the modern school with more justice claim that it depends on the purpose of the speaker for in some cases there is no apparent incompatibility between the literal sense and the context to give rise to implication

Govardhana[2] gives a different division of the implied sense into primary (*śuddhā*) and secondary (*gauṇī*), the former of which includes the first two of the divisions ordinarily accepted. The secondary form of implication covers such a case as *Gaṅgāyām ghoṣaḥ* 'the cowherds' station on the Ganges', where the qualities of coolness and holiness which mark the current of the sacred river are attributed to its bank The doctrine is important,

[1] *It is given by Viçvanatha only cf NKoça p. 650 Jayadeva on* TK 1c 2 660.
[2] On TS § 59

for it is part of the reply of the Nyaya to the doctrine of suggestion (*vyañjana*) on which from the eighth century onwards an important school of poetics was founded[1] Suggestion based on words (*śabda*) was classed by the Nyaya as secondary implication sug gestion based on thought was included under inference Thus when the maiden says

Go if thou wilt beloved, safe be thy journeying,
There may rebirth be mine where thy journey endeth

the intimation that parting will cause her death is attributed by the theory of poetics to suggestion but by the Nyaya is regarded as merely inference The theory which reduces suggestion to inference has its classical exponent in Mahima Bhatta and formed the subject of an elaborate refutation by Mammata But his arguments failed to persuade the Nyaya school of the untruth of their theory

Words, however by themselves alone convey no meaning they derive their signification from their serving as members of sentences (*vakya*) a term which in the Nyaya view applies not merely to propositions containing verbs but to any collocation of words, such as a noun and adjective which has a definite sense In this view the Nyaya conflicts as often with the Prabha kara Mimāṁsa[2] which finds that words have significance only when constructed with a verb which lends signifi cance to the subject object or other qualification of the action which it expresses In the Nyaya view no such primacy belongs to the verb or any other part of speech the meaning is conveyed by the collective sense of all

[1] Jacobi ZDMG lvi 396 ff NGWG 1903 pp 1 ff Jakhu vida (Trivandrum S S 1909) pp 2 ff

[2] PSPM p. 63 Kumārila allows of significance in words NV p 815, is directed acc to NVT against the Prabhākara view cf NSM., pp 161 ff

the words taken together[1] But it is not every collocation of words that can give a meaning there are three requisites which must be fulfilled to secure this result The first is, as viewed from the standpoint of the listener expectancy (*ākāṅkṣa*)[2] the word *ghaṭam*, accusative of 'jar', by itself is unintelligible it requires its complement in *ānaya* bring where the root *ā nī* is expressed in the second person imperative, from the point of view of the word it and each element of it demands supplementing by another word or words Secondly there must be compatibility (*yogyatā*)[3] between the meanings of the words water burns is syntactically possible but contrary to reality and therefore meaningless In the third place the words must stand in proximity (*sannidhi āsatti*) A word itself consists of a number of sounds each of which exists for three moments only that of its production of its perception and of its passing away so that the perception of a word bears a similarity to the process of recognition the sense is apprehended at the last moment when the final sound is heard and the earlier sounds remain only in memory[4] In a series of words if there intervenes too long an interval between any of them they cannot be apprehended as a single whole and therefore reasonable proximity is necessary whether the words be spoken or arranged in writing It is not enough however that these conditions should be fulfilled for the meaning of a sentence to be appre

[1] TC iv 1 460 ff

[2] TC iv 1 18 244 TA p 20 TB pp 47 9 TK pp 16 17 TS §§ 60 61 BP 84

[3] TC iv 1 24 8 TA &c as BP 87

[4] TB pp 49 50 NB p 191 NV p 314 negative the sphota theory which denies to letters the power of denoting things and invents an eternal intelligent entity as an owner of knowledge of things is derived see SDS ch xii 18 f 5° com a SS v f Çankara BS 3 °8

hended their existence must be recognized by the hearer or reader for if he does not do so he will misunderstand the sense while on the other hand even if they are absent he may by conceiving them to exist read a possible sense into the words[1]

A further condition is however laid down by Gangeça Viçvanātha and Jagadīça and implied in the view of Annam Bhatta They require knowledge of the intention of the speaker (*vaktṛ tātparya jnana*) by which means alone for example can one distinguish between the two senses of the words *saindhavam ānaya* 'bring my horse' and bring salt But serious objections are urged against this view on the ground that words which convey a definite sense may yet not be uttered with the purpose of conveying that sense Thus a fool may utter words which he does not understand or a parrot repeat a sentence without knowing its meaning and it is not a sufficient reply to argue that such sentences are apparent only, not real A Vedic text must have a definite meaning yet it may be recited by a man who does not understand a word of it it may be wrongly expounded by a teacher or it may be read in a book In the last case there is no speaker whose intention can be understood in the two former the speaker does not intend to express what is really the meaning If the orthodox view is adopted which attributes to God the authorship of the text so that the intention to be known is his there is the fatal objection that the meaning of Vedic sentences may perfectly well be understood by those who reject the view that God is their author A very different definition of intention is therefore given by the *Vedantaparibhasa*[2] which makes it consist

[1] TC iv 1 286 318 TA &c *u s*
[2] TC iv *i* 319-71 TA *p* 90 BP 84 TSD § 59
[3] p 90

in the fitness of words to express a particular meaning, there being no utterance with the intention to convey a different sense the proviso being intended to cover the case of equivocal terms like *saindhavam* where the intention of the speaker is to convey one sense only

Propositions fall into three classes command (*vidhi*) prohibition (*niṣedha*) and explanation (*arthavāda*)[1] A command is a sentence which conveys knowledge which forms a base for action as in 'Let him who desires the heaven offer the Jyotistoma sacrifice' It takes the two forms of a categorical imperative (*niyoga*) applicable to rules which must be obeyed in every case or of a permission (*anuj ñā*) as in the case of rites the performance of which is optional A prohibition affords knowledge of an act which as injurious is to be avoided while an explanation covers the rest of the field of propositions and includes whatever serves to make clear the meaning of a text These divisions primarily apply to Vedic texts but are transferred also to profane works

2 *The Authority of Speech*

The exact nature of verbal knowledge as a means of proof is a matter of some difficulty and there appears to have been a diversity of opinion between the older and the modern school Annam Bhaṭṭa defines verbal knowledge as the knowledge of the meaning conveyed by the whole sentence and ascribes as its proximate or special cause the spoken word (*śabda*) by which the sense was conveyed This view is consistent in taking the unit of understanding as the sentence and it is unnecessary to suggest that Annam Bhaṭṭa may have

[1] TK. p. 87 Nyāya i 1 63 divides into *vidhi* (TC iv 71 ff.) *arthavāda* (ibid 460 ff.) and *anuvāda* Cf TSD § 81 PSPM pp 110 ff.

[2] TS § 63 NVT i 1 3 emphasizes that knowledge is of the things denoted by the sentences

been prepared to accept the theory as applicable to individual words On the other hand the definition viewed in the light of the proximate cause assigned leaves no room for written works The defects of this view are avoided in the definition of Viçvanatha[1] who makes the knowledge of words (*pada jnana*) not words the proximate cause on which supervenes the comprehension of their signification the final result being verbal knowledge This view which is that of the modern school is supported by a quaint argument if the word alone were the proximate cause of verbal knowledge how could a verse written by a dumb man be understood as it is in fact?[2]

The *Nyaya Sutra*[3] establishes the authority of verbal testimony as the assertion of a trustworthy person against the claim that it is inference in a manner which seems largely to give away the case It admits that as in inference something unseen is inferred from what is seen and as in inference we argue from a sign e g smoke to a conclusion e g fire so in verbal testimony we draw an inference from a word to a thing signified by it But the answer is that there is reliance in the matter signified by a word because the word is used by a reliable person (*apta*) There is no perception of connexion between a word and its sense such as we find at the basis of inference There is indeed a connexion but it is conventional as is seen in the actual facts of speech where diverse peoples use diverse words for the same thing The further objections[4] to the authoritative character of the Veda based on its falsehood contradiction and tautology are refuted by arguing that the alleged untruths are due to some defect in the rite

[1] BP 81

[2] NSāra p 210 gives gesture and writing as equivalent to speech

[3] ii 1 49–57 [4] ii 1 58–69

performer, or instrument, through which the hoped for result of sacrifice, e.g the attainment of a son, is unattained, that the contradictions are merely cases of alternatives permitted, and that the alleged tautology is really useful repetition The Veda, therefore, is accorded authoritativeness like the spell and medicine because of the authority of their authors, the Sutra leaving it uncertain whether it ascribed the Veda to God The *Vaiçeṣika Sūtra*[1] stands in much the same position It asserts the conventional character of language, and declares the composition of the Veda to have been due to intelligence Moreover, it seems to assert that the assignment of names is a proof of the existence of beings distinguished from ordinary men a statement which if it does not point to the recognition of God as the giver of names, does indicate the recognition of seers[2] Further doubt is created by the twice[3] repeated assertion that scripture is authoritative, because it is proclaimed by God or proclaims the duty of man, as the terms *tadvacanat* are variously, and not without a plausible ground in either case explained, the former version having the authority of Praçastapāda though it suffers from the disadvantage that God is not directly referred to anywhere in the Sutra The claim of verbal testimony to be a separate proof is disposed of by the assertion that it is explained by inference[4] which gives us either the argument that the conclusion is inferred from the fact that scripture is authoritative as proclaimed by God or from the fact that it is authoritative as proclaiming the sacred law In any case scripture is freely used by Kanada to confirm his arguments as it is used by Gautama.

The view of the Nyāya is followed by the syncretist

[1] ii 2 14 20 vi 1 1 4
[2] ii 1 18
[3] i 1 3, x 2 9
[4] ix 2 3

school which in this measure formally departs from the Vaiçesika proper, which rejected verbal knowledge as a separate means of proof just as it rejected comparison including both under inference When words are pronounced they argued[1] and their meaning is recollected there takes place an inference which may be formulated thus the meanings of the words which are heard are connected with one another, because they are brought to my recollection by the aid of words which are connected by relations of expectation compatibility and proximity More simply the argument may be put thus before a man can utter words he must appreciate the connexion between the ideas which he is about to express in language as is shown by their possessing expectancy &c and it is not language which establishes this connexion The reply of the Nyaya Vaiçesika as given by Annam Bhatta[2] rests as in the case of comparison on a psychological ground the consciousness resulting from verbal knowledge as a means of proof is asserted with truth to be different from that obtained from the use of formal inference but this reply does not meet the real point at issue Udayana[3] attempts a more formal answer taking the syllogistic form of the Vaiçesika argument he seeks to demonstrate that the premisses do not warrant a certain conclusion while anything else than a certain conclusion is of no value

In the Vaiçesika view as presented by Praçastapada[4] it is probable that we must recognize the influence of the Buddhist logic which declined to accept verbal knowledge as a separate source of proof on the ground

[1] TC iv 1 2nd ff PSPM pp 63 6 rejects human testimony as not in itself valid but only if we believe the speaker to be truthful

[2] TSD § 63 cf NSM pp 136 41

[3] Kir. iii 13 Cf NSara commentary p 209 ÇD p 51 The whole view is refuted KKK I 335 46

[4] I 206 ff above ch i 1 § 2 pp 106-8

that it was itself merely an effect of the reality which it represented. Just as when we see smoke we deduce the presence of fire, so when we hear a true word we deduce the reality which it stands for; every word then is a causal conclusion, the thing it represents being the cause and the word the consequence of the cause which is the real fact. The place of verbal knowledge therefore in the view of Dignāga is to be found only in the syllogism as reasoning for another, not as an independent means of proof. Praçastapāda, however, departs from the spirit of the Buddhist theory by his acceptance of the authority of the master, Kaṇāda, as decisive, and in effect the conception of authority nominally rejected by the Vaiçeṣika thus reappears in full strength. It is easy, therefore, to understand how the syncretist school accepted the Nyāya[1] view without question, since in recognizing the validity of the dicta of Kaṇāda Praçastapāda in effect rendered the refusal to accept verbal knowledge as a means of proof meaningless. Vyomaçiva[2] indeed accepted formally verbal testimony as a means of proof.

Not all propositions of course are authoritative; that character applies only to Vedic texts and to the utterances of a man worthy of credence, and a man's credibility depends in the ultimate issue according to Annam Bhaṭṭa[3] on the fact that he speaks the truth or according to Keçava Miçra[4] that he describes things as they really

[1] Bhāsarvajña (NSāra, p. 29) holds that the validity of verbal testimony is established by experience of its truth in practice (e.g. the result of sacrifice) and the absence of ground for disbelief in one thus competent to declare unseen things, which are the main sphere of verbal testimony.

[2] ṢDST, 67a; cf. SSS, v. 33.

[3] TSD, § 59.

[4] TB, p. 46; TR., pp. 94, 95: [illegible]. The divine authority is dealt with, ibid., pp. 12, 58.

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[3] Kusum iii 13. Cf NSara commentary p 209 ÇD p 51 The whole view is refuted KKK. I 335-46

[4] I 206 ff above ch II § 2 pp 106-8

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[2] ÇDST. 6 a; cf. SSS. v. 33.

[3] TSD., § 59.

[4] TB. p. 46; TK. pp. 31–9 ... yathārthavādī ... The divine authority is dealt with, ibid. pp. 1–58.

are In both cases the Nyaya view accepts the utterances as correct on the ground that it believes for reasons which it thinks sufficient that they do reveal the truth of the universe there is here no question of faith in revelation contrary to the claims of reason *credo quia incredibile* is not the attitude of any adherent of the Nyaya what is revealed forms a complete system of coherent truth

The Veda however is not all of equal authority it is divided in the later Nyaya into the four classes of Çruti Smrti Itihasa and Purana in a descending order of value Çruti is the primary fountain of knowledge Smrti is available only when it does not contradict it or when Çruti is silent on the point at issue the other two sources are of inferior importance Çruti again includes the four Vedas each with its subdivisions of Samhita Brahmana and Aranyaka including Upanisad Smrti is represented by the law books and Itihasa and Purana by the epic and the Puranas The Çruti alone is treated as divine in origin and therefore unconditionally worthy of credence the other authorities have human authors and therefore are liable to be erroneous[1]

The claim however that the Çruti is the work of God is assailed by the Mimamsa[2] which urges the view that the Veda is not the work either of man or of God but exists for ever in its own right How they ask, could God who as incorporeal has no organs of speech utter the words which make it up? If it be urged that he assumed a human form for the purpose of revelation the

[1] Athalye TS p 350 PSPM pp 198 ff

[2] ÇV pp 30 ff 358 553 5 SDS p 104 Cf the Sankhya view SS v 49 15 ff where the antiquity and eternality of the Veda are denied but its self proved authority upheld PSPM p 66 For God's authorship see Kus II and IV

answer is that by such assumption he would lose his power of revelation, being subjected to all the limitations of material existence. Moreover they deny that there is any tradition of either divine or human authorship; the sages mentioned apparently as authors did no more than apprehend the hymns and hand them down in schools. Positively they adduce passages which assert that the Veda is eternal and uncreated. Against them the Nyāya[1] urges that other passages assert the creation of the Veda, but it also adduces more effective arguments. All propositions which we know of have authors, as in the case of those we ourselves enunciate or those of the *Mahābhārata*. To the Mīmāṃsā retort that the argument applies only to works whose authorship is known as in the case of the epic, the Nyāya replies that the authorship of God is assumed for the Veda by the testimony of Gautama in whose school it has been handed down. Moreover if the Vedas were eternal, the sounds in them would coexist from eternity, and it would be impossible to arrange them in the deliberate order which alone permits of their being a means of verbal knowledge. The Vedas, then, must have an author, and their transcendental wisdom forbids one supposing that any man could have excogitated them, leaving us no option but to ascribe them to God.

The Mīmāṃsā, however, has no hesitation in asserting that sound is eternal.[2] It is a quality of the ether and like it eternal; the beating of a drum reveals it to our ears, but does not call it into being, when any letter is

[1] TC iv 1 83 ff., TsD, § 62 with Nīlakaṇṭha's commentary, NSārv, pp. 29, 214–16.

[2] MS i. 1 6–23, ÇV, pp. 408–85 (words), 486–552 (Veda); PSPM, pp. 56–61, cf. Çaṅkara, BS i 3 28. Muller's theory (*Six Systems*, pp. 196 ff., 520 ff.) of the word as a creative power is clearly not in the texts.

pronounced in our hearing we recognize it at once with absolute certainty, which would be impossible if its existence were momentary only as the Nyaya believes. The Nyaya rejects the doctrine of the eternity of sound Gautama[1] gives three reasons for this view, that sound has a beginning, that it is perceived by an organ of sense, and that like any other product it has attributes If we recognize as we do a sound like *ga* when pronounced by diverse persons at diverse times it is because of the identity of the specific character (*jati*) of the sound which always accompanies it whenever it is uttered or in a homely simile it is like the flame of a lamp which, right after being extinguished is nevertheless regarded by us as the same as the flame which originally stood in its place

The Veda then is for the Nyaya a divine revelation of eternal truth but it is supplemented by the statements of men whose knowledge of the truth confers upon them a right to our belief[2] Such men are Gautama and Kanada the founders according to tradition of the Nyaya and the Vaiçesika systems and it is in the light of this position that the importance of verbal knowledge becomes clearly revealed. The aim of philosophy is not to discover a theory of the universe it has the more modest aim of enabling us to understand as a reasoned system those truths which are revealed for us by scripture or discerned by seers with the superhuman power of direct perception which such men as we have seen command It is not enough that man should accept tradition alone for his beliefs then would be blind and inaccurate he must study the lines of reasoning laid down in the systems which establish how the truth of

[1] NS *ii 2 14-59 TC iv 1 3 5 161* Vatsa *pp 29 216 19*
[2] TC iv 1 83 ff.

the revelation can be apprehended. But, if man were to attempt this study without the aid furnished by the declarations of the seers, his chance of success would be negligible: mere ordinary reasoning and perception do not avail in the doctrine of the schools to seize the fundamental truth of the universe.

determination (*nirnaya*) the ninth category, of formal discussion (*vada*) the tenth category, and of wrangling (*jalpa*) and cavilling (*vitanda*) which are the eleventh and twelfth in the series

With the advance of the philosophical character of the school these dialectical categories became of less and less importance and in the syncretist texts which adopt as a rule the order of topics suggested by the Vaiçeshika categories they are little noticed But Keçava Miçra respects the order of the Nyaya, and from him and his commentator Govardhana it is possible to gather some knowledge of the development in conception of these categories which took place between the time of Vatsyayana and the modern school It is of some interest that while Keçava Miçra tends to accord with Vatsyayana, his commentator follows the views which also find expression in Vaçvanatha's commentary on the Sutra

This division of opinion is specially marked in the case of the category of principle or dogma (*siddhanta*) which Gautama[1] describes and subdivides into four classes but with such vagueness of expression as to leave full room for the ingenuity of commentators Its real sense is doubtless that of a tenet considered as part of the system of a school in the later definition of Keçava Miçra it appears as a thing admitted because it is established by one of the means of proof which is wider in extent but not substantially different since the tenets of schools all rest on some form of proof But it seems, further to have denoted a result in the nature of a corollary from admitted principles and the proceeding by which a principle of the opponent is admitted in order to refute him by showing that some proposition which he sustains is inconsistent with that principle

[1] i 1 26 30 x 11 NBh and NV TB pp 93 94 SDST pp 4 35 ASAJ xxv 330 TR, pp 170-4

Of the four divisions of this category the first is the *sarvatantra siddhanta* which Gautama defines as a principle which is not contrary to the views of any school and is accepted in one's own schools Examples are the existence of the five senses and their objects as given by Vatsyāyana or of sound, even if we doubt its being eternal or non eternal all admit that there is such a thing to adopt Keçava Miçra's instance The modern school give it a special sense as applicable to a principle which is conceded by two disputants engaged in a discussion for the purpose of that argument The second class consists of the *pratitantra siddhanta* which is defined by Gautama as that which is accepted by similar schools but rejected by other schools Vatsyayana illustrates this from principles common to the Sāmkhya and Yoga while Keçava Miçra chooses instead the Nyaya and Vaiçesika for his example a difference probably significant of the fact that in Vatsyayana's time the similarity of the schools was not yet so far advanced as later The modern school[1] with Govardhana take a different and improbable view they mean by it a principle proper to one school and rejected by another as the eternity of sound is asserted by the Mimāmsa and denied by the Nyaya and vice versa. The third class *adhikarana siddhanta* is a principle which follows from the establishment of another principle rather than a hypothetical principle* which if accepted, leads to the acceptance of some other for it is illustrated by the suggestion that if we recognize God as the creator we must recognize as a corollary his omniscience

On the fourth class the *abhyupagama siddhanta* there is an acute divergence of opinion According to

[1] So TR., p 171, who gives the antitativeness of God as a case As taken in SBH viii 9 NBh makes it a principle the establishment of which involves establishing other points

Keçava Miçra the obscure text of Gautama means that one admits a view of the opponent without examination of its validity in order to follow out its consequences and thus refute another view of the opponent[1] Thus a Mimansa disputant may admit in arguing with a follower of the Nyaya on the nature of sound that sound is a quality hence he deduces that as sound is in the Nyaya view a quality of the ether which is omnipresent it must be without parts and so cannot grow in size This confutes the Nyaya argument for the non eternity of sound based on the fact that it grows and diminishes in intensity The moderns again with Viçvanātha and Govardhana understand this form of principle to be one which not explicitly stated in the text of a school is implied in it as in the case of mind in the Nyaya view for while it is not included by Gautama as a sense organ or means of proof but as an object of proof it is interpreted by the school to be included in the class of sense organs It is just possible to make either sense accord with the words of the definition

The ninth category determination (*nir aya*) or ascertainment is defined by Gautama[2] as the ascertainment of a thing after reflection on the arguments for and against it It is clearly nothing more than the definite result of a controversy (*kathā*) the different kinds of which are specified in the tenth eleventh and twelfth categories[3] The discussion (*vāda*) is a serious debate carried on by those who seek to establish truth by means of thesis (*paksa*) and counter thesis (*pratipaksa*) It must not contravene the principles of the school must whether in demonstration or refutation be based on the

[1] So NBh i 1 30 otherwise NV and NVT
[2] i 1 41 TB p 9 TSD § 81 NSāra pp 15 149
[3] NS i 2 1 3 TB pp 97 100 TSD § 81 SDST pp 7 9 GSAI xix 334 8 NSāra pp 15 16 151 61 TR pp 905 16

rules of logic, and take place in syllogistic form There are excluded, therefore, all the means which appertain to sophistry rather than to serious discourse thus frauds (*chala*), futile objections (*jāti*), and cavilling (*vitandā*), wrangling (*jalpa*) and occasions for reproof (*nigraha-sthāna*) are all out of place An exception is however, sometimes made of four kinds of occasions for reproof, namely fallacies, which in any case are to be attacked, and the three peculiar forms styled deficiency (*nyūna*), which means omitting a member of the syllogism, redundancy (*adhika*) which means adducing too many members as by adducing more than one reason or example, and deviating from a tenet (*apasiddhānta*) These are clear cases which invalidate argument, and therefore are suitable for challenge But the discussion must be conducted on the basis of the principles which the controversialist accepts it is impossible to censure a Buddhist for not using the Nyâya syllogism when his own school recognize two members only in lieu of five

Quite opposed to the dispassionate argument (*vitarā-qakatha*) is the passionate contest in which victory alone is the aim and in which frauds futile objections and occasions for reproof are the stock in trade Such discussions are divided into two classes the criterion being whether or not there are both thesis and antithesis In the former case we have wrangling in the latter mere cavilling

B METAPHYSICS

CHAPTER VII

ONTOLOGY

1 *The Categories of Kanada and Gautama*

In the syncretist school it is an accepted doctrine that all things that can be known and named that is all things which exist, fall under seven categories (*padartha*, object (corresponding to) a name) These are substance (*dravya*) quality (*guna*) motion or activity (*karman*), generality (*sāmanya*) particularity (*viçeṣa*)[1] and inherence (*samavaya*) which may be regarded as positive categories, and one category of non existence (*abhāva*) It is, however certain that this does not represent the ancient view of the Vaiçeṣika We have the express statement of Praçastapada that the categories numbered six, and this tradition prevailed long after other evidence shows that the last category had been recognized Madhava[2] thus expressly states that the number of categories in the system is six as does Hari bhadra[3] though his commentator adds that others recognize non existence. The exact period when the new category was added is unknown It was anterior to Çridhara, for in his exposition of Praçastapada[4] he insists

[1] Hence the name of the Vaiçeṣika system in Praçastapāda.
[2] SOS. p. 86
[3] SDS. 60, OSAI xx 34, 35, so SSS. v 19, 20
[4] NK., p 7

that the category of non existence is implied though unexpressed, explaining its omission as due to the relation in what it stands to existence generally and in another work of the same century,[1] Udayana divides the categories into existence (*bhāva*) and non existence (*abhāva*) and then subdivides the former head into the usual six Thus by this date the recognition of non existence as a separate category parallel in a sense to the six positive categories had come into being, but the full step of reckoning the categories at seven had not yet been definitely accepted We find this process complete in the work of Çivāditya which is styled *Saptapadārthī* the sevenfold character of the categories thus appearing as definitely established

It is less certain whether the six categories as such were recognized by Kanāda The text of the Sutra[2] in one place expressly enumerates the six and though Praçastapada's[3] treatment of the topic may be invoked as proof that the Sutra was not in this condition when he used it, this is not sufficient proof in view of the fact that Praçastapada is not a commentator proper What is much more important is the fact that Kanada[4] evidently conceived the first three categories to stand apart from the others, he applies to them only the term object (*artha*) and in treating of the contemplation attained by Yoga he deals with the vision thus acquired of the first

[1] *Lakṣaṇāvalī* p 1 Kir, p. 6 so TR, pp. 130, 163, 164

[2] 1 1 4

[3] pp 6 7 Bodas TS, pp 90 2 Vātsyāyana's use of the categories (NB 1 1 5 and 9) is conclusive for their priority to Praçastapāda The Mīmāṁsā has the same set of four or in Prabhākara's case five to which he added capacity, number and similarity, TR, p 163, Kir, p. 26, PSPM, pp 88 91 Raghunātha adds *śakti saṁkhyā sādṛśya vaiçiṣṭya*

[4] viii 2 3 For the distinction of *aśrita* in all six categories, *samavāya* in the first three *svātmasattā* in the last three, see PBI translation p 49 cf NV, pp 323 ff

three categories only[1] It is still more important that Kanada specifically declares generality and particularity as relative to the intelligence[2] which at once gives them a different place from that of the first three categories, while inherence appears only as the relation between cause and effect[3] The conception of the categories as a complete division of the real universe is therefore to be ascribed either to Praçastapada or to some predecessor in the school

Gautama's categories as we have seen, are rather divisions of a treatise on logic, and it is the second object of proof (*prameya*) which most nearly corresponds to the categories of Praçastapada. The heads of that category are the soul or self body the senses the objects of sense cognition mind activity error transmigration the effect of good and evil deeds pain and liberation The list is completed by purpose (*prayojana*) which appears as the fourth of his categories The confusion involved in such a division is obvious and explains fully why the syncretist school save Keçava Miçra follow the Vaiçeşika in their treatment of categories

2 *Substance, Quality and Activity*

Substance is a distinct genus but a positive definition can only ascribe to it either the possession of qualities[4] and action[5] or being the intimate cause of a product[6]

[1] ix 1 14

[2] i 2 3, hence the mysterious *buddhilakşanam* of the last three categories in PBh , cf Kir , p 30

[3] vii 2 26, hence it is not very closely parallel to Plato's *κοινωνία* (cf Lutoslawski *Plato's Logic* p 254)

[4] TB , p 69 TK p 1 TS § 3 TR p 132 For the Yoga view cf Wood's *Yoga System* pp xv xvi

[5] VS i 1 15 has all three PBh , p 21, uses the criterion of indestructibility by causes or effects cf Kir , pp 32 f 43, 44 VS i 1 12

[6] TB , p 69, BP 23, TR , p 132

The first suggestion, however, is contrary to the principle that at the moment of its coming into existence a substance has no quality, while the latter expresses a fundamental principle that only substance can give rise to a product Quality *guṇa* as defined by Kanada,[1] has substance as its substratum, is without quality, and is not a cause in conjunction and disjunction, a point which differentiates it from activity or motion which is defined as abiding in substance, devoid of quality, and the immediate cause of conjunction and disjunction[2] Motion again differs from quality in that the latter resides permanently in substance, the former temporarily Beyond this definition does not go the Vedanta recognized the impossibility of defining it, and called it inexpressible (*anirvacaniya*), while the Buddhists denied its existence *in toto* a tenet which the Nyāya Vaiçeṣika wholly rejected, as well as the Buddhist doctrine of activity or causal efficiency[3] as the one mark of reality

To the Buddhist argument that all is non eternal the *Nyaya Sutra*[4] replies that then non eternity is eternal nor can it be argued that what is non eternal perishes utterly like a fire when its fuel is burnt out There is a distinct divergence in our perception, what we can see produced and destroyed is non eternal, the rest is eternal and the counter argument that, if the atoms are eternal then their products should be so is opposed to facts of

[1] VS i 1 16 SP § 68, TB p 78, TK, p 1 TSD, § 4

[2] VS i 1 17, PBh p 290, SP, § 69, TB, p 86, TK, p 1, TSD, § 5

[3] NB, p 103, NBT, pp 4, 5, 9, 16 17, SDS, p 7, cf SBE xxxiv 410, SBNI, pp 21 ff NK, p 12, SDS, p 20, NVT, pp 387 ff TR pp 13 ff

[4] iv 1 20 40 Cf the Mimāṁsā arguments, ÇV pp 119 82, Çankara on BS. ii 2 31, NK pp 41, 42, SSS i 34 ff For the Buddhist view see *Mahāyānasūtrālaṁkāra* xviii 82 103, Ratnakirti, SBNT, pp 20 77, SDS, p 12, SSS iv 2 9

perception and the conception of time Nor is it true to contend[1] that there is no substance apart from its qualities, or whole apart from its parts The substance is marked out by its possession of parts or qualities as one we recognize the jar we saw yesterday which we could not do if there were nothing but sensations of touch and colour If it is argued that nothing is really existent because it is non existent as regards any other thing, 'A horse is not a cow', the reply is that each thing has a true existence which necessarily excludes the other It the same argument[2] is based on the necessary relativity of all things, the answer is that relations imply terms as much as terms relations

Elsewhere[3] the question of whole and part is defended against the argument of unreality in connexion with the suggestion that perception is really inference as we see only part of any object and not the whole If there were no whole it is pointed out there could be no perception, for without a unit everything would be liable to resolution into its ultimate atoms which are not perceptible Yet another attempt is made to meet this issue[4] The Buddhist opponent asserts that the whole (*avayavin*) cannot exist since the parts cannot reside in it either as a whole or partially nor can it reside in them nor apart from them nor is it identical with them The answer given is that the attempt to treat the conception of a whole as a matter of spatial location is mistaken a whole is something over and above the parts, which stand to it not in a spatial relation but in a unique

[1] *Madhyamaka Vrtti*, pp 64, 71 Aryadeva in *M Vrtti* p 71

[2] *M Sutra* xv 1, 6 *Aryaratnakara Sutra* in *Vrtti* p 90

[3] i 1 30 6, NB, pp 30-6 NV pp 210-52, insist on the argument that a whole is necessary to explain our conceptions of magnitude, conjunction, motion, and class a curious argument as to weight as a criterion of a whole is found NV, pp 237 ff

[4] iv 2 4 14 Cf ÇV, pp 320 47, SS i 42 PSPM pp 30 8

relation of inherence The question stands of course in immediate relation to the kindred one of cause and effect, the Buddhists[1] deny that an effect before its production can be described as existent non existent or both, the Nyāya[2] contends that a whole which is an effect is non existent before its production from its causes, thus keeping in harmony with their doctrine that a whole is something entirely other than the parts from which it is made up

There are nine substances the four atomic earth water fire and air, ether, time and space, the self or soul and mind The existence of yet another is postulated by the Mimansa of Kumarila[3] to explain darkness whose claim to be a substance rests on its possession of blue colour and motion These attributes are denied by Annam Bhaṭṭa[4] who declares darkness to be no more than the absence of large illuminating light in general a view akin to that of Prabhakara who held that it was the absence of knowledge of light while Çrīdhara[5] suggests that it the imposition on something else of blue colour Darkness, therefore is classed with non-existence pure and simple as it is illegitimate to attempt to set up special categories of non existence corresponding to each form of being

The qualities enumerated by Kanada[6] are seventeen colour, taste smell, and touch, numbers dimensions individuality, conjunction and disjunction priority and posteriority cognitions pleasure and pain desire and aversion and volitions The list has obvious imperfec

[1] *M S tra* i 6 vii 20 Aryadeva in *M Vṛtt*, p 16 cf Çankara BS ii 2 26 27
[2] iv 1 48-54 below § 4
[3] ÇV *p* xl Anu SS i 56 PSPM p 93
[4] TSD § 3 BM on BP 3 see VS v 9 10 20
[5] NK p 9 cf SP §§ 55 175 Kir, pp 15 20 [6] ii 1 6

tions and the commentators from Praçastapada[1] downwards are unanimous in interpreting the word and[1] used in connexion with the last member as implying others The orthodox list is made up to twenty four by adding gravity fluidity and viscidity, merit and demerit sound and faculty the last vague term being extended to cover velocity elasticity, and mental impression But some reduce the number by three omitting priority and posteriority as depending directly on time and space and individuality as the special form of non existence styled mutual non existence (*anyonyabhava*) Others however, increase the number by three or four adding lightness softness or hardness and laziness but these are rejected by Annam Bhatta[2] on the ground that lightness and laziness are the mere negatives of gravity and volition while the other two depend on the degree of conjunction or disjunction

Of these qualities[3] five belong to all substances—number dimension individuality conjunction and disjunction and may therefore rank as general[4] qualities Time and space have no others the ether has sound also The four atomic substances have the five general qualities and priority and posteriority air has also tangibility or rather temperature and velocity fire has temperature colour fluidity and velocity water has the qualities of fire with the addition of taste gravity and viscidity earth has the same qualities as water less viscidity and smell Mind which is regarded as corporeal (*murta*) has the seven qualities of the atomic substances

[1] p 10

[2] TSD § 4 cf for other s NK pp 10 ff

[3] BP 25 34 elasticity also belongs to all tangible things

[4] In the school term nology (PBh p. 96) this class includes priority posteriority gravity artificial fluidity and velocity But only the five belong to all substances. Comparison with primary qualities is misleading All are real NK pp 59 96

and velocity The self has the five general qualities, and nine of its own, cognition, pleasure and pain, desire and aversion volition merit and demerit and mental impression, while God has the five general qualities and cognition desire and volition alone While the qualities generally are attributes of one substratum only, conjunction and disjunction number beginning with two and individuality, in so far as resulting from reciprocal exclusion between two or more things, must have a multiple substrate [1]

More important for the distinction of substance than any of these divisions is that between all pervading [2] (*gatatva*) substances which have extreme magnitude (*paramamahatparimanavattva*) and those which are corporeal (*mūrta*) and have limited magnitude (*parichinnaparimanavattva*) or as is equivalent motion since that implies the movement of the parts or whole from place to place which is possible only if the substance is limited in space Corporeal substances include the four atomic substances and their products together with mind The other substances are unlimited, and enter into conjunction with all corporeal objects, they are the self, time and space and the ether The last and the four atomic substances constitute the elemental substances (*bhūta-dravya*) which singly or by combination among themselves become the material causes of all the products in the universe Again substances are divided as eternal and transient the atoms, the ether, time and space the self and mind are eternal, the products of aggregation are transient

The special qualities fall to be considered together

[1] Ib p. 95, BP 86-8

[2] TSD, § 14 Nyāya pp 705 706, PBh, p 23, Kir, pp 34, 35, cf Raghunātha, PTN pp 25 7, who claims that *bhūta* and *mūrta* are true classes

with the subjects to which they appertain, but the general qualities belong to all substances alike and though they are real they are not necessarily so in the same way as the special qualities This is most clearly seen in the case of number[1] which is defined as the cause precisely the proximate instrumental cause, of the use of the terms *one, two three &c* Of numbers *unity* is eternal and resides in the individual atoms and the other substances which are eternal plurality exists only in products which are transient But the Nyaya view is that duality &c are real like unity and are only revealed by cognition the Vaiçesika insists that all numbers above one are the creation of a relating cognition (*apekṣa buddhi*) and not merely made known by it The process is thus described first there is contact of the sense organ with each of two jars then the knowledge of the genus unity then cognition operates relating the objects each recognized as This is one then duality is created thence the knowledge of the genus of duality, thence the recognition of duality as a quality in the two things, and finally there is left only the impression of plurality for as the relating cognition is a form of consciousness it can endure for no more than three moments as soon as it has produced the knowledge of the quality two in the objects it disappears and with it as cause must go its effect Other numbers are arrived at in the same way for though some recognize indefinite multitude (*bahutva*) as distinct from definite numbers this view is generally rejected But though

[1] First in PBh pp 111 18 SP §§ 26 87 TB pp 79 80 TK p 5 TS § 94 BP 106 9 VSU iv 1 11 Kanada's doctrine of unity is given VS. vii 2. 1 2 8. Cf TR p 152 ibid p. 164 Prabhakara's doctrine of a special category number is refuted Cf Cowell SDS pp lxl ff Raghunatha (p 75) accepts it cf *Padārthatattvanirūpaṇa* pp 29 39

the Vaiçesika thus accepts all numbers over one as a product of mental activity, it does not extend this view to unity itself

On dimension (*parimana*)[1] the school has little to say It is the proximate instrumental cause of the use of measurement, and may be divided into four kinds minuteness (*anutva*) largeness (*mahattva*), length (*dirghatva*) and shortness (*hrasvatva*) but this rough division between magnitudes or two or three dimensions and those of one only is often dropped and as in the Samkhya only the first two recognized Each class again may be subdivided as medium and extreme the ether has extreme greatness, a product like a pot medium greatness, an atom extreme minuteness, a binary medium minuteness Dimension is eternal in eternal substances transient in others, in the latter the dimension is determined by the number magnitude and arrangement or aggregation of parts[2] but in the former, as an essential part of the atomic theory by number alone. But of the precise character of extension there is no investigation though it is deemed to be absolutely real and not dependent on cognition

Individuality (*pṛthaktva*)[3] is the proximate instrumental cause of the practice of separating one thing from another As against the conception of reciprocal non existence (*anyonyabhava*) with which some seek to identify it it is real not notional in character 'The pot is not a piece of cloth is essentially different from The pot is separate from the cloth which makes it

[1] PBh, pp 130 2 SP §§ 2" 83 TB pp 80 81 TK p 5 TSD § 25 BP 109 13 TR p 144 SS v 80

[2] VS. vi 1 8 9 with commentary

[3] PBh p 138 SP §§ 28 89 TB p 81 TK p 5 § TSD § 26 BP 113 114 Cf VS vii 2 2 8 TR. pp 144 15? It is denied the rank of a quality, as are priority and posteriority by Raghunātha PTV, pp 28–30

clear that the two things are positively distinguished Again, we can say that a pot is not the quality of colour which resides in it, but not that the pot is separate from the colour Individuality may be eternal or transient according as the substance in which it resides and by an adaptation of the theory of number a distinction obviously of no value is made between the individuality of a single thing and that of two or more objects which is produced by the operation of a relating cognition But individuality itself is not due to cognition but absolutely real and its relation to number is not examined save in the unfortunate hypothesis of two kinds of individuality

Conjunction and disjunction (*saṁyoga* and *vibhāga*)[1] also appear as real being caused by motion They are the *proximate instrumental causes of our use of the* expressions united and separate and are artificial and transient as they apply only to the contact of things which have been apart and the separation of things which have been united Contact is primarily and properly due to motion *(karmaja)* whether unilateral as of a bird to a tree or bilateral as of two butting rams. Secondarily it is due to another conjunction thus the body is united with the tree through the conjunction of the hand and the tree and an effect on its production thus becomes united with something already connected with its cause Direct conjunction may be produced by a violent motion like sound or by a gentle motion Every kind of conjunction affects a part of the thing only and may be destroyed by separation or by the destruction of the things connected Disjunction for its

[1] VS vi 2 9 11 with commentary PBh pp 139-41 151 4 SP §§ 29 30 90 91 187 TA pp 11 1° TB p 81 TK pp 5 6 TS §§ 27 °8 BP IIo 20 TR p 144 PSPM p 93 *Padarthara ṇamāla* pp 82 83

part is distinct from the act of separation which is due to motion, and denotes the state of separation existing between two things formerly in contact It is subdivided as is conjunction but the Vaiçesika alone accepts the doctrine of disjunction by disjunction as in the case of the disjunction of the body from the tree by disjunction of the hand This denial that the motion of part is the motion of the whole is repudiated by the Nyaya school

The part played by the category motion[1] in the process of conjunction and disjunction is simple it is the cause by means of separation of the conjunction of an object with another point of space after there has taken place the breaking up of its conjunction with an anterior point of space Motion thus takes place in five stages an object is in contact with a definite point of space, by the effect of motion it separates itself thence, thus there arises the destruction of its connexion with its first position in space, then there is conjunction with a new point of space, then the motion ceases. Motion may be vertical, throwing up or down horizontal expansion and contraction, or of any other kind summed up in the generic term going' The term used for it which signifies properly activity (*karman kriya*) is significant it suggests that it originally[2] had a wider conception in which it applied both to volition and motion as the two great aspects of activity and has come to be restricted to the latter by the designation of volition as a quality of the self Motion as defined is in all its varieties transient and is destroyed either by a subsequent conjunction or the destruction of its substrate, substance

[1] VS i 1 7, 14 17 ii 1 23, PBh pp 290ff TA, p 14 TB, p 86 TK, pp 1, 20, TS, §§ 5, 76, BP 6 7 TR p 156 PSPM, p 91, *Padārthatattvamālā*, pp 40 2

[2] So Kumārila ÇV, p 395 There is no trace of recognition of chemical action in Kanāda he recognizes φορά only, not ἀλλοίωσις.

Unlike the other general qualities priority and posteriority[1] are restricted to the four atomic substances and to mind and in the latter which is eternal they are spatial only They are the proximate instrumental causes of our conceptions of near and far in space and time alike As such obviously their attributions as qualities to objects cannot be regarded as in any way ultimate as we have seen this recognized by some members of the school who remove them from the list of qualities An important admission as to their dependence on thought is made by Praçastapāda when he recognizes that the judgement by which one object is assigned a position in time or space relative to each other is due to the operation of the relating power of cognition (*apekṣabuddhi*)[2]

While the ultimate atoms, air the ether time and space the self and the mind are inferable only in the Vaiçeṣika view though the Nyaya permits the direct perception by the mind of the self the qualities are for the most part the objects of perception if present in objects possessing magnitude Thus the five qualities of temperature or touch, colour, smell and savour and sound are perceived by one sense organ only[3] that appropriate in each case the five general qualities together with the illegitimate qualities of priority and posteriority and with fluidity and viscidity are apprehended by the two senses of sight and touch, cognition, pleasure and

[1] VS vii 2 21 3 with commentary PBh pp 164 ff SP §§ 31 92 138 TA p 10 TB pp 81, 82 Tk p 6 TS § 29 BP 121 5 [2] p 30 TR, p 15[3]

[3] PBh pp 96 ff BP 9[3] 23. VS iv 1 6 12 requires colour for all visual perception *which it alone recognizes as perception proper* (eiks sa), so NBh i 1 67 NV, pp 23[3] 233 NSM pp 93-6 but the later view is in NSāra, pp 2 3 Cf Kir, pp 82-6; NK pp 44 45 For magnitude see VS iv 1 6, NS iii 1 6 with NBh and NV, TP, p 79

cognition[1] it seems to follow that he conceived that if a property resides in many things and if we use that property as means of grouping these things it becomes a general property (*sāmanya*) and that if it is regarded as distinguishing these objects from other objects it is a particularity (*viśeṣa*) But on this substructure Praçastapada[2] and the whole school have built a rigid realism which regards generality as eternal, one, and residing in many things but only in the categories of substance quality, and motion As eternal it is distinct from such things as conjunction and duality which though residing in many are transient, as one it differs from the dimension of an atom, and it resides in many by inherence (*samavaya*) thus differing from absolute non existence, which is not so connected with things Generality may be divided according to its degree into the major and the minor[3] the former of which consists of existence alone, which is found in the three categories of substance quality and motion while these categories themselves are minor generalities But from another point of view a threefold[4] division may be preferred that of most extensive (*vyāpaka*) which includes essence that of intermediate (*vyāpya vyāpaka*) which includes the three categories, and that of narrowest (*vyāpya*) which covers such generalities as the genus pot where the term genus is to be understood as referring to the common characteristic and not to the individuals comprised under it The latter division accentuates the fact

[1] i 2, 3 ff Badly explained away in Kir p 30 and in VK as meaning that their existence is proved by intellect.

[2] pp 11, 12, 311, 312, Kir pp 22 4 SP §§ 7, 70 111 TK, p 14, TB pp 86, 87, Th, pp 1, 29 TS, §§ 6 7 NP 8 10, TR, pp 158 159, *Padārthadharmasaṃ* 13, pp 42-4

[3] PBh *l c* VS treats the lower generalities also as species relatively to being (*Mādhava* p 1 \

[4] TA *l c* SP, § 111 For the *Daçapadārthī* see Ui pp 35 7, 63 71

that the general characteristic is deemed to be something which actually exists and in harmony with this view it is made the object of perception either by means of all the senses in each appropriate case, or of mind alone in the latter case falling under the concept of extraordinary or supernormal perception[1] The reality of generality lies also at the basis of all predication

Generality as true is immediately connected with its substance quality or motion and in this aspect can be styled a true class concept (*jati*) On the other hand there are common characteristics whose connexion with a number of things is only mediate and which therefore rank only as mere generality (*upadhi*) The causes which prevent a common characteristic or mere generality becoming a true generality or class concept are given by Udayana[2] as six If there is but one object such as ether there can be no class If the same object has different names such as pot and pitcher there are not two separate classes If there is cross division a class concept is excluded thus the four atomic substances and ether constitute the products (*bhūta dravya*) the same four with mind the corporeal things (*murta dravya*) and thus neither can be a true class Nor can there be a class of a class on pain of a *regressus ad infinitum* Again the notion of particularity absolutely refuses to allow of forming a class of it Finally, as every class concept resides by inherence in its objects

[1] Cf Plato, *Soph* 254 c 255 a, for the categories of οὐσία στάσις κίνησις ταυτόν θατερον Plotinus v 1 3 Generality is not dependent on the individuals but does not exist apart from them it is at once ἓν παρὰ πολλὰ and ἓν κατὰ πολλων Cf above ch I §§ 1 3 Ari t A E i 6 Raghunāthā (FTN pp. 49 51) denies a genus to existence (*sattā*) and quality as a whole (*guṇatva*)

[2] Kir p 33 C ted in TA p 14 SM on BP 8 ṢDST 65 according to *NS* ii 2 71 a *jāti is samānaprasava ātmikā* and has a distinct form (*ākṛti*) as its sign Cf NM pp 297 310

there cannot be a class of inherence for else we would have the absurdity of inherence as a class residing by inherence in inherence The distinction therefore is clearly that between real natural classes corresponding to facts in nature and classifications based on our thought only and it is by no means unlikely that it was this distinction which made the younger school persist in or even invent the conception of generality as absolutely real Such a conception afforded an answer to the apparent difficulty why we should frame such obviously conflicting ideas as those expressed in knowledge of true and arbitrary or shifting classes and induced the school to adhere to their realism[1] despite the strong attacks directed against it by Buddhists and Jains alike[2]

To particularity Kaṇāda refers only in its connexion with generality as dependent on cognition[3] while he elsewhere distinguishes it from the ultimate particularities residing in the ultimate atoms of matter[4] On this Praçastapāda[5] and the rest of the school of the Vaiçeṣikas found their theory of particularity as an independent reality residing in eternal substances that is the atoms and the other five substances and distinguishing them from one another The necessity for such a distinction is established thus We can distinguish between any ordinary objects by enumerating their constituent parts the empiric individual being that which has a bodily form and special qualities[6] but when in the

[1] So Kumārila ÇV pp 201 6, 216 330–40 464–8 cf SS. v 91 3 where also (94 6) similarity is rejected as a separate category as by the Nyāya PSPM pp. 9 ff

[2] Açoka, Sāmānyadūṣaṇadikprasārita SBNT pp 94 102 Candraprabha Prameyaratnakoça ch. xix NB, p 115 NPT p 84 SDS p. 10

[3] i 2 3 ff

[4] i 2 6

[5] pp. 13 321 322 SP §§ 8 71 TA p. 14 TK p. 87 TK pp 1 90 TS §§ 7 73 LP 10 TR pp 1 9 160 Kir pp. 21 2

[6] NS ii. 2 69

ultimate analysis we reach simple substances like the atoms or selves we can find no parts to permit of distinction yet as we are assured of distinction we must assume that there lies in each individual a quality *sui generis* which makes it distinct from all others and serves this function alone To this view the objection was taken before Praçastapada, and is adopted by the modern school of Nyaya that there must be something to differentiate the particularities and the reply is made that this is a function which they perform for themselves as well as differentiating the substances in which they inhere It is hardly surprising that this expedient should have proved unconvincing and that the retort should be made that there is no good ground for not attributing to the atoms themselves the inherent power of self discrimination instead of multiplying entities. Nor has the doctrine any acceptance[1] in other schools being rejected by both the Prabhākara and Bhatta schools of Mimansa the Vedanta Buddhism &c. In any case it is admitted that particularity cannot be the object of perception but can only be inferred

Of inherence Kanada[2] tells us only that it is that through which it is said of cause and effect that the one abides in the other (literally that this is here') but the principle is already developed in Praçastapada[3] to the definition that it is a connexion which exists between things which cannot exist separately and stand in the

[1] Species of course is accepted but not particularity cf TR. p 163 PSPM p 90 The schools use *nityas* and *anityam* nately in both senses Raghunātha (PTN pp 30 32) denies particularity, cf *Padārthatattvanirūpaṇa* pp. 44 8

[2] vii 2 26 cf x 2 1 ff

[3] PBh pp 14 324 9 SP §§ 9 72 TA. p 14 TB. pp 16 17 TK pp 1 20 TS §§ 8 79 BP 11 cf ŞDS 66 with Gunaratna VSU vii 2 26, 2 TR pp. 160 3 Kir pp 25, 26 NV pp. 55 56 296 KKK ii 82 4 Raghunātha (p 76) denies its unity

relation of substrate and that which exists in it, and which produces the concept expressed in the word 'Here' There is no substantial difference in the modern definition of inherence as one and consisting in an eternal relation between things which cannot exist separately (*ayuta siddha*) The description as one and eternal is intended to refute the objections of the Prabhakaras and the modern Nyaya which reject both appellations The unity of inherence is proved like the unity of existence by the fact that there is no difference in principle between the different cases in which we infer the relation of inherence The eternity is proved by the simple argument that, since every cause is linked to the effect by inherence, assuming that inherence were an effect it would be based on itself, which would lead to a *regressus ad infinitum*, and therefore be absurd But the eternity is relative, not absolute, like that of the atoms, it denotes only that the relation can only disappear with the disappearance of the things related Such a relation differs entirely from conjunction which can only exist between things normally separate, and it is confined to the five cases of the relation between the product and its parts both of which must be substances, substance and quality, substance and motion, generality and the individual and particularity and the eternal substances in which it resides From the fact that it exists between things which are imperceptible such as sound and ether as well as between objects of sense the Vaiçeṣika [1] deduces that inherence is an object of inference only, but the Nyaya insists that it can be perceived by a special process of perception

The difficulties of the doctrine have not failed to awake lively criticism, especially as the view of inherence

[1] PBh, pp. 3–8, 32), Nkoça, p 881, VSU vii 2 28

stands in indissoluble connexion with the doctrine of causation The Bhaṭṭa Mīmāusā Vedanta Sāmkhya and Buddhist alike decline to accept it, and Çankara in particular destroys the conception in his exposition of the *Vedānta Sutra*[1] He points out the impossibility of the argument which seeks to distinguish conjunction and inherence, the former is eternal as well as the latter, for instance, in the case of the relation between ether and the ultimate atoms, it is useless to assert that inherence can exist without a third thing to unite it with the things in which it exists while conjunction needs inherence to hold it to the things which are in conjunction and the difficulty is not removed by the verbal expedient of calling one a category and one a quality Moreover, the argument that there must be this relation between cause and effect cannot be accepted If cause and effect are inseparably connected as the Vaiçesika holds then is it not far more simple to assume that there is identity of essence between the two? Moreover the conception of inseparable connexion contradicts point blank the idea that cause precedes effect which is an essential part of the Nyaya Vaiçesika doctrine of causality

4 *Cause and Effect*

The Nyaya Vaiçesika doctrine of cause and effect stands in immediate relation to that of inherence which as appears from Kanada was first conceived as the relation between these two But the development of the examination of cause did not adhere strictly to this

[1] II 2 13 17 Cf Aroka *Anyar arakarana* SBNT[4] pp 8 86 *Sāṁkhya Sūtra* V 99 100 with commentary ÇV p 94, PSPM pp 89 100 who regards it as many and both eternal and noneternal perceptible and imperceptible

dictum the concept includes much beside the cause, which in the strict sense of the word is the inherent cause, though that always occupies an essential place in the theory

In the final form[1] of the doctrine the cause is that which always precedes the effect is necessary to it, and that *not merely as an accessory cause (anyathā siddha)*. The precise nature of accessory causes is not, however, very explicitly stated, they include matters which, *though in relation of inherence with the cause* proper, are not themselves directly instrumental in causation like the colour of the threads in the production of a rug, those events prior to the cause which only remotely affect it, such as the father of the potter in relation to the pot, and generally all influences which, though in relation with the cause, are neither necessary nor sufficient to produce it, such as the ass who carries the clay for the fabrication of the pot Viçvanatha subdivides the first two classes into two each, but the last class clearly covers the whole field, and its vagueness is obvious

Causes are divided into three kinds[2] The first is the inherent cause, in which case the relationship is that of *inseparable connexion* It is illustrated by the relation of the threads to the rug, as opposed to the shuttle which aids in the production of the fabric, and the same relation exists between all products and the substances of which they are made It holds also between sub-

[1] TA, p 4, TB, p 11, TK, p 7, TSD, § 38 *BP* 16, 18 *22*, cf KKK ii 168 73 Raghunatha (PTN, pp 71–4) claims for causation the rank of a category

[2] The whole doctrine is implied in VS x *2* 1–7, i 1 18 ii 1 2, where the causal character of the substances, qualities, and motion is given, PBh, pp *21*, *24*, 98 102 *SP*, §§ 62, 179, TA, p. 4, TB, pp 15 25, TK, p 6, TSD, § 40, *BP* 17, *18*, TR, p 152 *4*, 156, 157

stance and quality and substance and motion the rug is the inherent cause (*samavāyi kāraṇa*) of its colour and it is readily admitted that as the cause must precede the effect at the moment of its coming into being the rug must have no colour and since it can also have no dimension cannot be perceptible at all until these attributes have come after an infinitesimal delay into being Secondly there is the non inherent cause (*asamavāyi kāraṇa*) which inheres in the same substratum with the effect or with the inherent cause The first is the relation of the arrangement of the threads of a rug to the rug the arrangement or conjunction as a quality is inherent in the threads which are the inherent cause of the rug The relation may secondly be indirect thus the colour of the threads of the rug stand in this relation to the colour of the rug the colour of the threads inheres in them they inhere in the rug and the colour of the rug inheres in it Thirdly the category of instrumental cause (*nimitta kāraṇa*) is the receptacle for every sort of cause which cannot be brought under the two preceding heads including the agent in it again there may be drawn a distinction between special and general causes of which there are eight God his knowledge desire and action antecedent non-existence space and time merit and demerit to which some add absence of counteracting influence[1] But in this view of the third category it seems that the term cause is too widely applied and includes what is not necessary and a better method is that followed by those who distinguish between primary (*mukhya*) and subordinate causes and

[1] Cf Athalye TS pp. 207 208 The idea is applied to the case of perception in NS i 1 2 as regards duration space time and ether as regards space and time see PBh p 93 Kir pp 88 89 VS v 1 20 v 2 2 26 Faddegon *Vaiś System*, p. 219

that of Annam Bhatta[1] who makes it the positive correlate of an anterior negation thus emphasizing the fundamental feature of the doctrine of causality in the Nyaya Vaiçesika its denial that the effect always exists prefigured in the cause (*a sat karya tad i*) The doctrine is already expressly insisted upon by Kanada[2] without a cause there can be no effect not however without an effect no cause Thus the doctrine of the school is that the cause always precedes the effect and the latter has no existence until it is brought into being It has therefore some affinity with the Buddhist doctrine of the generation of being out of not being and it stands in absolute contradiction with the Samkhya[3] assertion of the pre existence of the effect in the cause (*sat kar ya vad i*) or the Vedanta[4] view which preserved the identity of the cause while holding that the effect was ultimately illusory The Samkhya lays stress on such arguments as the fact that in experience we see that there can be no creation of anything new the blue colour can never be converted into red the sesamum can be traced in the oil pressed from it, no effect is ever produced from any cause as would be possible on the Nyaya view but only from a specific cause if the suggestion is made that the cause possesses some power to produce the effect is this power connected with the effect? If so that is as much as to say the effect is prefigured in the cause if not there is the fatal difficulty as to the concurrence of definite effects with definite causes Finally as cause and effect are correlative ideas it is impossible to assert the existence of cause without its producing at once the effect The Nyaya reply is not uningenious the same

[1] TS § 59 [2] VS i 2 1 [3] Garbe *Samkhya* pp 298 ff SS i 111 99 Keith *Samkhya System* pp 73 93

[4] Deussen *Vedânta* ch x xx Çankara on BS ii 1 14 6.

atoms make a pot or a saucer, on the identity theory the atoms pot, and saucer should all be the same which is not the case, an argument which the Vedanta meets by denying that things which are equal to the same thing are equal to one another The shape of a pot again is not to be traced in its constituents and must be new Or if it is argued that the effect is latent but is made manifest then the manifestation itself being an effect, must have existed previously and so on indefinitely This argument can only be met by resort to the Vedanta theory that the whole manifested work is but the play of illusion and that one real alone remains Hence Çankara's onslaught on the conception of inherence in its relation to causality escapes the difficulty of the Sankhya, which is compelled to ignore obvious facts by its insistence on the prefiguration of the real cause in a real effect But it is difficult to hail Çankara as the predecessor of Kant[1] in his treatment of cause, when it is remembered that it is not this category merely but everything in the universe which is projected by the cosmic power of illusion

Apart, however, from the fundamental problem of causation, there are obvious weaknesses in the doctrine of the Nyaya Vaiçeshika The ignoring of the agent is obvious and inexplicable for on their own view the agency of God is an important feature in creation and their doctrine of causality and non existence adapts itself admirably to permit of the proof of the creative power of God The distinction between inherent and non inherent causes is untenable and inaccurate as the latter are in indirect relations of inherence while non inherent applies properly to instrumental causes Nor is there any recognition of the conjunction of inherent

[1] Ithaly., Ts., I 205, *contra*, Deussen, *Allgem. Gesch.*, I. iii. 63.

causes to produce a result despite the obvious problem presented in the familiar case of the pot in view of the presence of water in its materials[1] and the argument against the Samkhya theory which can be deduced thence is palpable Needless to say, the more complex case of chemical compounds is ignored[2] as are also the plain facts of the same effect produced by apparently different causes or the intermixture of effects. In no case does there more clearly appear the divorce of the system from practical scientific experience

5 *Non existence*

In Kanada non existence, as we have seen does not appear as a category His own doctrine misinterpreted by his commentators, amounts to this[3] Absolute non existence or negation is not a predicable at all, antecedent non existence, the condition of the cause *qua* effect before it produces its result subsequent non existence, the condition of the effect when resolved into its elements, and mutual non existence the relation between things possessing identity of their own all have definite relations to reality and do not form a special category In the Nyaya[4] we find the germ of the idea of not being as something knowable and existent in the

[1] VS i 1 23 applies only to union of similar substances combination of motions is denied i 1 24 and causation of motion by motion i 1 11

[2] There is no trace of a recognition of chemical compounds or an organic whole as suggested by Chatterji *Hindu Realism* pp. 27, 56 whose authorities (NVT, p 280, Kir, pp. 114 115) do not bear out his contention in any way The refusal (VS iv 2 1 4) to allow of a combination of heterogeneous atoms to form the body shows the real view of the schools. Contrast Seal *Positive Sciences*, pp 96–121

[3] ix 1 1 ff

[4] NS ii 2 12 with NBh and NV NBh p 2 NV pp 10 33 NVT, p 23, above, chap ii § 2

same way as being the knowledge being based in the Bhasya on inference but later ascribed to direct perception in a peculiar form Two forms of negation are recognized in the Sutra explained in the Bhasya as non existence prior to being brought into being and non existence after the destruction of the form of the thing brought into existence Harmony between the Vaiçesika and Nyaya was established before Jayanta and Vacaspati[1] the latter of whom gives the classical division of negation as based on identity or correlation the latter comprising the three varieties of antecedent consequent and absolute non existence[2] The older Nyaya tradition however retained the Sutra standpoint by explaining that absolute non existence was merely antecedent non existence without a determining limit and negation of identity was similarly antecedent negation conceived of as in relation to a different thing which it never becomes Antecedent negation explains also negation of requirement and of capacity not previously existing while subsequent negation disposes of negation of prior capacity if these further divisions of negation are adopted

The syncretist school while adopting non existence as a separate category always recognize its correlation to being, negation is knowledge dependent on knowledge of the positive counterpart (*pratiyogin*)[3] an idea familiar in rhetoric where in Thy face is like the moon the latter is the counterpart of the relationship of similarity abiding in the face The pot is the counterpart of its

[1] NL pp 196 8 NVT p 30 Kir p 6 Lak p 13 NK 1 230 NM pp. 53-61

[2] *anyonyabhāva* p 32 *prāgabhāva* *dhvaṃsābhāva* relation (*saṃbandha*) covers inherence and conjunction

[3] SP §§ 10 53 73 110 13 TA p. 10 TB, p. 88 TK pp. 1 21 TSD §§ 9 80 BP 10 13 TP p 163 NSM pp 34 58

antecedent or subsequent non existence, it is an effect of the one and a cause of the other, in absolute negation the counterpart is determined by a relation of negation with its substrate e g the ground on which the pot once seen is no longer present From absolute negation mutual negation differs by resting on denial of identity not of relation Beyond these four classes some Vaiçesikas[1] went by distinguishing from absolute negation temporary negation (*samayikābhāva*) as in the proposition The pot is not on the ground' while Annam Bhatta refutes this subdivision with the argument that the non existence of the pot on the ground is permanent and only temporarily obscured by being covered up with the pot when it is present Yet another teacher Saudanda introduced the conception of the non existence on the ground of a pot because there is there instead a cloth but this futility did not win much support

Needless to say this conception of non existence as a reality received no support from the other schools and the Mimaṁsa in particular was ready to show that the position of the Nyaya Vaiçesika involved them in a fatal *regressus ad infinitum* inasmuch as if non existence were a reality then the negation of non existence must be another reality and so on indefinitely To meet this objection the weight of which was of course decisive for the school the ancient Nyaya developed the view that the negation of a negation was equivalent to the positive The modern school however repudiate this view a negation cannot they hold ever be equivalent to a positive but they admit that the negation of the negation of the first negation is equivalent to the first negation[2]

[1] NKoça pp 7 7a, Atlalye TS pp 371 372 TC i 53 5 5 *Padārthatattvanirṇaya* pp 24 25

[2] Cf. TSD, § 80 with Atlalye a note. Raghunatha PTN pp 55 7

It is more interesting to note the sympathy which exists between the doctrine of the school and the Buddhist view of the momentariness of existence, which finds expression in the doctrine of causation also. Cognition in the Buddhist doctrine of momentariness developed in the Sautrāntika school[1] persists for a moment only: it is non-existent, existent, and gone, and in harmony with this we have the antecedent non-existence, existence, and subsequent non-existence of cognitions in the Nyāya Vaiçeṣika, where, however, with characteristic adaptation to meet the view of the school[2] the length of existence of the cognition is conceived in three aspects, that of its coming into being, that of its disappearance, and the intervening space. Sound also is subjected to the same treatment possibly already in Kaṇāda, and certainly in the work of Praçastapāda[3]

[1] SSS iii. 3 6, 7, SDS., p 10, NB, p. 108, NBh v 1 24, NVT, pp 105, 380, AK., pp 73, 74, *Madh Vṛtti*, pp 116, n 1, 281, n 1, 545, n 6

[2] The origin of this doctrine can be seen in the three stages of a *saṃskṛta*, 'confection', in *Aṅg Aṅuya*, i 152, *Kathāv* i 61, *Madh Vṛtti*, p. 145, as *utpāda, vyaya, sthityanyathātva*, the Vaibhāṣikas have four; cf. *jati, jarā, sthiti, aniçata* (ibid p 545) in the *Abhidharma*, as occurring in *kṣaṇa*; the *Abhidharmakoçavyākhyā* applies the division to the series, not the *kṣaṇa*. Cf the Yoga view of time as a series of *kṣaṇas*, YS iii 52 with commentary

[3] p 25; *Kir*, p 38. Cf *foc cognition*, NS iii 2 1 ff. To say that cognitions endure for three moments (Athalye, TS, p 167 Sinha, *Intr*, p. 215, *utpatti, sthiti, naça*) is the doctrine of the later texts, e g. TK, p 19, TB, pp 83, 84, but it is a mere matter of terminology as the doctrine is in effect in PBh, p 237. But the exact form of the doctrine is not proved for either Sutra. On the *kṣaṇa* cf PTN, pp 58–61, *Padārthakaṇikāmālā*, p 35. Contrast the view of duration as real, James, *Psych.* i 609 ff. Prangle Pattison *The Idea of God*, pp 350 ff

CHAPTER VIII

THE PHILOSOPHY OF NATURE

1 *The Atomic Theory*

The doctrine of the existence of real things in the universe had to face when it was first expounded in definitive form the presence of the powerful influence of the doctrine of vacuity (*śunya vāda*) or philosophic nihilism of the *Madhyamika* school of *Buddhism* which owes its establishment to *Nagārjuna*.[1] The essential principle of this school, whose views may be compared usefully with the dialectic of Zeno, asserted that on analysis our ideas present such inconsistencies and incompatibilities that there can be nothing real underlying them, they deny therefore not only the true existence of external reality, but they do not admit that thought itself is real, so incoherent and contradictory is it Thus against the claim of realism that there is both truth and reality, it is argued that on investigation the true essence of things is not revealed we form the notion of a cloth, but when we examine it we find only a mass of threads, whence it follows that our notion was an error Again it is urged, just as the objects seen in a dream magic, *fata Morgana*, and mirage, are not real though we believe in them, so also neither is our knowledge nor its object real[2] The response of the *Nyāya*

[1] *Madhyamika Sūtra*, I 1ff , iv 8, xiii 2, 8 cf SDS, p 11 SSS I 1 , above, ch ii, § 2

[2] *Mādh S.* vii 34, *Vrtt*, pp 178, 415 cf Gaudapāda, ii 6 ff

Sūtra[1] as expounded by Vātsyayana is effective If there is proof it is urged that nothing exists then this proof sublates its own existence If there is no proof how can it be established that nothing exists? If it is to be assumed without proof then the opposite contention is at least as legitimate The fact of our ability to analyse our notions confutes the belief in their unreality and that of their objects it cannot be expected that we should have a separate perception of the whole and its parts or of the cause and its effect As regards the argument from the dream state it is pointed out that no argument is adduced by the nihilists to show that the knowledge we have is really comparable to that of a dream in place of that of our waking experience nor again is it shown that our dream experience is of non existing things To these retorts Vatsyayana adds the telling argument that the only ground on which it can be taken that things seen in a dream do not really exist is that they are seen no more in the waking state which implies that our waking experience is real

Probably at a time after the production of Vatsyayana's Bhasya the need was felt in the school to combat the further development of the nihilism of Nagarjuna which in the hands of Asanga[2] and Vasubandhu led to the doctrine of idealism (*vijñāna vāda*) which denied absolutely the reality of external things and accepted as the only reality our ideas or mental acts including perception in their view therefore external things were merely products in our consciousness due to ideas

[1] v 26–37 Cf Çankara on BS ii 2 18–29 Kumārila ÇV pp. 148–89 PSPM pp. 94 95 83 SS ii. 43 ff

[2] *Mahāyāna-vatāra* ii 18 x 53 ff cf SDS p 19 SSS i 2 Stcherbatsko' *Museon*, vi 144 ff Gaudapāda in his attitude to the Vaiçeshika shows both Mādhyamika and Vijñānavāda influence see JRAS 1910 pp 129–40 JAOS xxxi 1 4.

existing independently of objects a modified form of which doctrine we have already seen in Dignaga It was therefore found necessary to reinterpret the Sutra[1] to make it cover a refutation of the denial by the new school of realism and this was the more easy in that such a refutation was necessarily in part implicit in the refutation of a nihilism which denied reality to thought and external being alike

The essence of the argument against pure idealism is therefore that it contradicts the nature of our distinction between waking and dream experience We believe that dream objects have no existence apart from our experience simply because when awake we do not perceive them as objects and this is explicable only on the theory that an external reality does exist But if there were not a sensible world of experience the dreams themselves could not exist for ultimately dreams are based on a real experience Moreover only on such a hypothesis as that of an external reality can we explain the distinction between truth and error as seen in hallucination or a mistake and the conviction of such a reality is also forced upon us by the fact that we do not as should be the case if the objects are only our ideas have them continuously and at our pleasure before us as is the case with our own ideas while our perceptions depend on things beyond our power to affect[2]

It remains therefore to discover what is the ultimate reality which is thus necessary to explain our experience Things in the universe are made up of parts which are combined into wholes by the relation of inherence and this conception serves to refute the objections directed against the conception of whole and part on the ground

[1] iv 2 26 30 as taken by Vacaspat The rendering of iv 2 26 in SBH viii 133 is clearly erroneous *buddhyā* being instr not abl

[2] Cf Çankara on BS ii 2 28 Kumārila ÇV pp 119 48

that the whole cannot reside in the parts, since it is greater than any one or more of them apart, nor can the parts reside in the whole since they are less than it, objections founded on a false application of spatial conceptions outside their sphere[1] Now the process of division of a whole can be carried beyond the limits of perception, but not indefinitely there must on pain of a *regressus ad infinitum*, which is inconceivable (*anavasthānupapatti*) be a point at which division stops and there remains a permanent substance which is never destroyed and which cannot be subdivided To this assumption there is obvious an immediate objection in shape of the existence of the all pervading ether which therefore must compel the atom to have parts The reply is that the conception of within or without thus implied is inapplicable to an eternal thing which is not a product, the omnipresence of ether is admitted, but it neither repels nor is obstructed and therefore in no wise implies the existence of parts in the atom for it has no form and is intangible There are the further objections that anything which has magnitude must have form and therefore parts and that the possibility of conjunction with another atom is only possible, if the atom has parts, but these are rejected without detailed refutation on the strength of the overwhelming weight of the argument that there must be an end to divisibility Nor does the *Vaiçeṣika Sūtra*[2] add any further argument of weight, it seems to conceive the grounds for accepting atoms to be the fact that there must be something uncaused, and that the existence of non-eternal things implies the existence of the opposed conception of eternal things, which can be found only in the atoms, though

[1] NS. iv 2 4 ff Cf. Çaṅkara on BS. ii. 1 26 31

[2] vii 1 9 10 PBh., p 28, TB, pp. 73 74 Tk., pp. 3 5 TSD p. 10, BP 26

these save in an aggregate cannot be an object of perception Aggregates differ by reason of the number of the atoms which produce them and thus create magnitude (*mahattva*) which is different from minuteness (*anutva*) In the atoms which are infinite in number we can distinguish classes according to their possession of qualities air atoms possessing tangibility, fire that and colour water these and savour and earth these and odour

The conception thus presented is simple and intelligible it is possibly a development from the earlier position which is represented in the Jain philosophy and which regards matter understood as eternal and undifferentiated as the product of atoms each of which occupies a point in space while they are all equal and not differentiated according to the four elements which are later evolved by a process of differentiation[1] In the Sutra as in the form of atomism found in Buddhism[2] the atoms are definitely brought into relation with the four elements by assigning to them specific qualities and possibly also the element of peculiarity (*viseṣa*) which enables them to remain distinct despite what otherwise must be their entire identity In the hands of Praçastapada however, there appears already a characteristic development of the theory which renders it far less simple and easy The magnitude of an aggregate which seemingly was in the view of Kanāda due to the number of the atoms constituting it is held to arise not from these causes alone but also from the magnitude of the constituent parts and their aggregation[3]

[1] Above Pt I ch § 1

[2] Cf Çankara on BS. ii 2. 18 SSS i 4 13 15 SDS p 13 NV p 246

[3] *mahattvapracayau* being supplied in VS vi 1 9 which refers to number of parts only Cf Kir pp 50 3 163 6

these terms being read into Kanada's aphorism wholly without warrant, and with a remarkable tendency to ignore the plain fact that the two new factors are on the ultimate analysis, as they are explained, nothing more than the results of the number of parts On the other hand below the stage at which magnitude is reached, number alone seems to act as a factor, a distinction wholly indefensible in theory, since if the atoms are really the source of all products there can be nothing save number to account for the diverse sizes of things The impulse to this view may have been given by the aphorism of Kanada which makes the minute the reverse of the thing which has magnitude and which seems to have been interpreted to set an impassable gulf between them and to require that magnitude should be produced from magnitude only If this were correct it would follow that combination of minute with minute would produce still more minute results but this conclusion would obviously have been contradicted by the fact that the atom was the *minimum dimensible* and therefore the rule that number gave increase in size was admitted Two primary atoms produce the binary (*dvyanuka*) which still is minute (*anu*) for it is without magnitude in the technical sense three binaries however, produce the triad (*tryanuka*) which is later asserted to be the mote in the sunbeam and equated with the *trasarenu*, the phrase used by the *Nyaya Sutra*[1] in expressing the furthest length of division and which there must be deemed to denote a dimension not too small for apprehension.[2] Possibly[3] there may have also contributed to

[1] IV 2 17 The phrase, however is uncertain in sense it may mean only that there is an end to division NBh *l c*, cf NV pp 233 ff

[2] SM *on* BP 10 37 TB. pp. 73 74 NKoça p. 433. *Some stopped here as the ultimate unit* Kir I 51 Ragunātha PTN p 11 Jacobi EI D 1 202

this result the fact that there was a division in things possessing magnitude between those which were eternal like space and those which were non-eternal the desire to emphasize this contrast also may have led to the setting up of the class of the eternal atom and the perishing binary, but the excrescence on the theory is palpable The insistence on number, however, gives rise to an effective argument for the impossibility of infinite division, since, if this were possible, it would be necessary to admit the equality of the size of the largest mountain and the smallest heap on the ground of the equality of infinities[1] A further argument, which is probably late in origin deduces that there must be a definite limit to subdivision just as there is a definite limit to extension in the sky[2]

In Praçastapada[3] appears also a clear statement of the mode in which the universe comes to rest, and is created again from time to time in an eternal cycle When a hundred years by the measure of Brahman, are at an end there comes the time for the deliverance of the Brahman then existing Then to secure rest for living beings wearied by their wanderings the Supreme Lord desires to reabsorb all creation, simultaneously with this desire there arises a cessation of the operations of the unseen tendencies (*adrsta*) of all souls that are the causes of their bodies sense organs and gross elements Then out of the Lord's desire, and from the conjunction of the souls and the material atoms there come about certain disruptions of the atoms constituting the bodies and sense organs The combination of the atoms is thus destroyed and thus brings about the destruction of all things down to the atoms There

[1] TSD., § 10, Kir., § 51 NVT IV 2 17
[2] SM on BF 37 cf NV, p 251
[3] pp 48 ff , Kir, pp 89 ff

ensues a successive disruption or reabsorption of the ultimate material substances—earth water, fire and air, one after the other Thereafter the atoms remain isolated and with them the selves permeated with the potencies of their past virtue and vices Then again, for the sake of the experience to be gained by living beings there arises in the mind of the Supreme Lord a desire for creation and there are produced in the atoms of air certain actions or motions due to their conjunction under the influence of the unseen potential tendencies that begin to operate in all souls These motions bring about the mutual contact of the air atoms and there appears through diad and triad &c finally the great air which exists vibrating in the sky from this springs the great reservoir of water in which appear the great earth and the great fire By the thought of the Supreme Lord there is produced from earth and fire atoms the cosmic egg in it the Lord produces the worlds and the creator Brahman to whom he assigns the further work of creation Brahman then endowed with extreme degrees of knowledge dispassion and power recognizing the ripeness for fruition of the tendencies of living beings creates his mind born sons the Prajāpatis the Manus gods fathers and seers and from his mouth, arms thighs and feet the four castes and all other living beings all having their knowledge and experience in harmony with their previous deeds and then endows them with knowledge virtue, dispassion, and powers in accord with their respective impressional potencies

As to the exact mode of the process of destruction a difference exists between the old and the modern schools[1] In the former view the process is from cause

[1] TSD pp 9 10 TB pp 71-3

to effect, the union of primary atoms in the binaries is broken, and with it the triads are destroyed and so on The modern view is intended to meet the criticism made by the Vedānta[1] which insists that the process of destruction must be the reverse of that of creation if the cause is destroyed before the effect, there must be a period when the effect remains in the absence of its parts It holds therefore that there is in every case one cause the dissolution of the union which is the non intimate cause of the effect which permits the adoption of the view that the destruction of the universe proceeds from the final effect backwards to the dissolution of the union between the atoms The conception of cosmic destruction also appears in the later school in two forms in the one the intermediate dissolution (*avāntara pralaya*) only tangible products are destroyed in a universal destruction (*mahāpralaya*) all these things material and immaterial are dissolved in the atoms and the repetition of creation is established by the authority of scripture As before the Lord placed all in order [2]

The whole theory is exposed to a very elaborate refutation by Çankara in his exposition of the *Brahma Sūtra*[3] The possibility of the beginning of motion in the state of dissolution (*pralaya*) is denied it is then impossible to conceive human effort or impact as operative since *ex hypothesi* they do not yet exist If the unseen principle (*adrsta*) is deemed to be the source it must either inhere in the soul in which case it cannot affect the atoms or in the atoms in which case as unintelligent it cannot set motion on foot If again the soul is supposed to inhere in the atoms and the unseen

[1] BS 1 3 14 with Çankara

[2] *Mahānārāyana Upanisad* v * For a *mahāpralaya* cf NVTP p 881

[3] 1 2 13 17 Cf SS 1 110 ff. with commentary v 8 88 NV p. 52.

principle to be combined with it there would be eternal activity, which contradicts the existence of the state of dissolution Again the unseen principle operates to secure reward and punishment for souls not to produce dissolution which is equally uncaused with the origin of the universe *How also can two atoms combine?* If in whole then, as there is complete interpenetration there is no increase of bulk and no production is possible, if in part, then the atom has parts just as it must have if soul *internal organ and atoms are to combine* Again either the atoms must be ever active or ever inactive, or both or neither If ever active, dissolution is impossible if ever inactive creation is impossible they cannot be both as that is self contradictory, if neither then activity and inactivity would require operative causes and these causes the unseen principle &c, being in permanent connexion with the atoms, would create permanent activity or if not permanent inactivity The possibility of connexion (*vinculo a*) between the ether or the binary atoms is denied and the argument again adduced that if an atom has form it must have parts The presence of qualities in the atoms suggests that they are not simple entities but compounds moreover, the idea that one atom though of the same size as another, has more qualities is untenable yet it is a necessary part of the theory[1] for, if the atoms all had one quality, there would be no variety of qualities if they all had all there would be no single qualities The whole conception of inherence is proved as we have seen to involve a *regressus ad infinitum* as deadly as the infinite regress objected to by the school while the idea of cause as distinct from the effect is strongly dis

[1] In NS iii 1 65 9 it is established by the argument that earth and water are visible and therefore must contain colour for if mixture sufficed *why is air invisible?* See NBh iii 1 67

approved It is of importance to note that in this effective criticism there is no reference to the conception—which Çankara knew—of the activity of the Lord as a source of motion of the atoms The soul mentioned is that of the individual which in the dissolution is inactive and therefore cannot prove the cause of motion

The criticism of Çankara is of special value by reason of its date and authoritativeness for it shows that in his time the theory had assumed the form in which it appears in Praçastapada[1] though its theistic tinge was evidently not regarded as a necessary part of it The history of the development of the system is the more important in that it serves to dispose of the suggestion that in the atoms we are to recognize not material things but real and self subsisting stimuli without any magnitude whatever and non spatial not unlike the qualitative atoms of the Herbartian school[2] This theory is supported on the assumption that the atoms being force points two the binary atom constitute a length and three lines thus make up a solid body with magnitude It is sufficient to observe that the binary atom is not a primitive concept in the school and that thus the whole basis of the theory is removed Nor are atoms absolutely without magnitude the minute is opposed to magnitude but in the same genus it is not true that the measures of the atoms being added cannot create any magnitude for in fact three triads consisting of binary atoms makes up a thing with magnitude the atoms are *not non spatial*[3] but devoid of parts and for the same reason not because they are non spatial, they

[1] Kumārila tentatively accepts the theory cf ÇV p 207 PSPM, p 92 So the Yoga YS i 40

[2] J C Chatterji *Hindu Realism*, pp 19–34 149 53 164

[3] NV p 522 Çankara on BS ii 2 12 the correct rendering is given in SBE. xxxiv 338

is not suspected and that luminosity is regarded as a particular variety of colour[1]

As we have seen, all the atoms possess the five general qualities of all substances and also the two of priority and posteriority It has also the qualities of odour which is its special mark savour, colour, and touch or temperature, gravity, velocity and fluidity Water has the special quality viscidity, and the other qualities of earth save odour Fire has the usual seven temperature colour fluidity, and velocity, while air has besides the seven only touch and velocity The qualities are eternal in the atoms but transient in the products. The products again fall into three classes in each case body, the sense organ, and object which is a loosely used phrase intended to exclude the other two classes, of which the first is plainly an object of sense, though the second while possessing the qualities of its substance possesses them in latent form The atoms themselves are never objects of normal sense they are only inferable by the process given above, the apparent inclusion of atoms in that category by Annam Bhatta must be attributed to inadvertence[2] The qualities also of the atoms can be discerned only in aggregates There is an obvious difficulty in the question of the relation of the further qualities recognized by the texts with the primitive four attributed to the atoms in the theory of the atoms Praçastapada and the Sutra stand close to the later view in their enumeration of qualities but while the addition of the seven qualities common to all matter is natural, it is less easy to account for the relation of the special qualities of gravity fluidity elasticity, and velocity, the

[1] Atmatattwaviveka TS p 118 The reference of *ausnya* heat, to touch is explicable, as touch includes the temperature sense

[2] Cf, however NV, p 233, where an early view to this effect appears.

last two of which are classed under the general head of impression (*saṃskāra*), the solution seems to rest in their being held to be intimately connected with the category of motion[1]

Thus already in the *Vaiçeṣika Sūtra*[2] gravity is defined as the non inherent cause of the first movement of a falling body The movement created by gravity produces velocity, which produces a second movement of which the non inherent cause is the first Gravity is possessed by earth and water and is super sensible, and thus must be inferred Fluidity[3] in its turn is the non inherent cause of the first movement in a thing which becomes fluid and it gives rise to velocity in the same manner as gravity It is natural (*saṃsiddhika*) in objects which are liquid at a normal state of temperature but artificial (*naimittika*) in those which require heat to produce liquefaction as in the case of butter among objects derived from earth and of metal among objects connected with fire and it resides therefore in water earth and fire Unlike gravity fluidity is assumed in the metals the gravity in them being attributed to portions of earth mingled with them The obvious suggestion that in the same way the fluidity of the metals should be attributed to the water element in them is rebutted by the fact that in that case the fluidity of metals would be natural, not as it is, artificial the

[1] All qualities general and special are equally real, the former depending on peculiarities of their substratum the latter differentiating substances, NK. p. 96. The attempt to distinguish primary qualities revealed by touch from other qualities, found in the *Dharma saṅgaṇi* (Wallleser, *Buddh Phil.* i 107 Rhys Davids, *Buddh Psych.* p. 43) is philosophically unsound cf Bosanquet *Logic*[2] ii 308 Pringle Pattison, *The Idea of God* pp. 115 ff

[2] VS. v 1-7 18 PBh p. 263 SP §§ 44 99 TB. p. 82 TK p. 19, TS. § 30, BP 153, 151 TP p. 116.

[3] VS. ii 1 29, v 2 4 PBh pp. 264 269 SP §§ 45 100 TB p. 82 TK p. 19 TS. § 31 BP 151-6 TR. p. 146

further suggestion that the *fluidity of metals can be* traced to the fluidity of their earth portions is rejected because the fluidity of metals is indestructible, while that of earth is destructible by intense heat No trace is to be seen of any recognition of the general similarity of gravity and fluidity, while the restriction of both to the production of the first movement has to be supplemented by assigning a new quality, velocity, which then comes into operation Velocity[1] is found in the four atomic substances and mind for there can be no motion save in things of limited dimension, and, therefore these five make up the class of corporeal substances (*mūrta-dravya*) while together with ether the four atomic substances constitute the elemental substances (*bhūta dravya*) With velocity is included under the generic term 'impression' (*samskāra*), the quality of elasticity[2] which is the power possessed by a thing of reverting to its normal condition after tension, it is declared to reside in all the atomic substances. Like velocity it results from motion, and it ends by the effect of the motion which it produces. The term 'impression' applied to these two has obviously been derived from the more primitive use of that word to refer to mental impression, which in the later classification forms the first of the divisions of the class impression, the analogy is obvious, since velocity and elasticity manifest the motion which creates them, and so in a sense survives as *an impression in the substratum* The classification is suggestive of the late development of the conception, in fact in the list of qualities attributed to the various

[1] VS 1 1 29, v 1 17 PBh, pp 266 267, SP §§ 47, 102, TB p 13, TB, pp. 85 86 TK., pp 19 20, TS, § 75, BP 168-61, TR., p 146

[2] Velocity on one view is a separate quality, cf SDST 63 GSAI xx 49

substances elasticity is passed tacitly over when velocity is mentioned, and it may represent a still further advance on the primitive idea

Motion itself as a category is analysed into the five kinds of throwing up, throwing down, expansion, contraction and going which is intended to cover any other form of motion[1] Motion resides in substance only, and perishes with it, it is essentially evanescent, it operates by conjunction and disjunction in as much as it is the cause of the separation of an object from the place where it is which destroys the conjunction between the object and the place on which it resides, and leads to the formation of a new conjunction which terminates the motion Thus there can be no generation of motion by motion for, each motion requiring a disjunction after the first disjunction, there must be a conjunction to permit of fresh movement It is for this reason that velocity is necessary to explain the subsequent movements of an arrow shot from a bow but the later doctrine that gravity operates through generating velocity is contrary to the view of Kanāda, who distinguishes between the velocity (*samskāra*) in an arrow discharged, and the gravity which produces its fall when there is no counteracting impulse or velocity Action again is also due either to volition (*prayatna*) which involves contact with the self, or without volition as in the case of throwing a pestle into a mortar which is due to volition while its rebound is the result of conjunction (*samyoga*) which is otherwise described as impulse or impact (*nodana, abhighāta*) The movements of the body in sleep are also without volition The evaporation of water arises from the conjunction of the rays of the sun with air, and the condensation and dissolution of water

[1] VS. i 1 7 see also i 1 11, 14, 20 2 21, 26 29-31 ii 1 21 23 2 25 v 1 an 1 2 an 1 references above ch vii § 2

are due to conjunction with air while fluidity causes the flowing of waters on the surface of the earth and gravity the fall of rain Other forms nf action however exist which cannot be reduced to the nperation of volition or conjunction They comprise in Kanada[1] a variegated list including the initial upward flaring of fire sideward blowing of wind and actions nf atoms and mind the entry and egress from bodies by the self the assimilation of food and drink the conjunction of other products apparently the production of the embryo, the circulation of water in trees the occurrence of earthquakes and similar terrestrial disturbances the attraction of the magnet and the motion of the jewel towards the thief All are accounted for, not by the action of the Lord in the Sutra but by the unseen principle which represents the fruits of previous deeds But it is clear that there is no serious effort to consider the question of the mode in which effort of the unseen principle can affect matter so as to produce motion It is clear that if volition involves the activity of the atomic sized mind and therefore has some vague degree of mediation with the actual atoms, the unseen principle is conceived as operating directly both on the atoms and on mind

Apart from the qualities which are closely connected with motion and the general qualities of all material objects are the old four qualities to which must be added viscidity[2] which is apparently a development of fluidity from which it is distinguished on the ground that its peculiar capacity of agglutination (*pindibhava*) is not resident in melted gold that is fluid It resides in water only the viscidity of oil milk &c is due to

[1] VS v 1 15 2 2 7 13 17 Candrakanta's effort (v 2 2) to explain *adrsta* as referring to unseen natural forces is unavailing

[2] PBi p 266 SP §§ 46 101 TB p 82 TK p 32 TS § 32 BP 157 TR p 147 *see* VS i 1 2

the presence in them of water though no clear explanation is offered of the reason why oil inflames fire while water extinguishes it for the stock answer that it has more viscidity leaves the question unsolved

Of the traditional four qualities colour[1] is that special quality which is cognized by the eye alone thus excluding substances like light qualities like number which are also perceived by touch, and reflected colour which does not reside directly in the object The classification of colours is not attempted by Praçastapada or Çridhara and is late they are enumerated either as six—white blue yellow red green and brown or with the addition of variegated (*citra*) as seven The addition of this last is due to the doctrine of the difference of the whole from its parts acceptance of this forbids us to admit that a carpet made up of pieces of different colour can be seen as having the colour of its parts which would involve the theory that the parts can be discriminated in the result a view which of course is contrary to the doctrine that the cause perishes in obtaining the effect The carpet must, therefore have no colour which would render it invisible or it must have as the school holds a special variety of colour styled variegated But it is in earth only that colour can appear in all these shades in water it is transparent white alone in fire resplendent white Savour[2] again is that specific quality perceptible only by the taste organ it is of six kinds—sweet sour saline pungent astringent and bitter earth has all these varieties water is sweet only the dissolution in it of earthy matter accounting for its sour or salt taste

[1] VS vii 1 1 ff PBh p 104 SP §§ 82, 83 TB., p 3 TK. p 4 TS § 19 BP 100 101 TR. p 14[9]

[2] VS i. e. PBh. p. 105 TR. p 79 SP §§ 83, 84 TK p 4 TS § 20 BP 101 102 TR., p 14[9]

Odour[1] is the specific quality whose characteristic is perceptibility by the organ of smell alone, it is fragrant or the reverse, and resides in earth alone Touch[2] (*sparśa*) is the specific quality whose characteristic is perceptibility by the skin only, it is cold in water, hot in fire, and temperate in earth and air, and therefore is really the temperature sense rather than touch in the wider connotation or in its specific sense Another view, however, suggests the addition of a variegated sensation of touch analogous to the variegated colour in sight, and this accords better with the wider view which is not accepted however by the school and in which touch is extended to include such qualities as roughness hardness, smoothness softness[3] On yet another view smoothness and hardness are ranked as separate qualities apart from touch, but this is rejected by Annam Bhatta who refers these qualities to degrees of conjunction

It would appear natural to assume that all these four qualities are eternal in the atoms and non-eternal in products, since they admittedly rest in the atoms. But by a peculiar doctrine[4] the principle is laid down that in earth even in the atoms the qualities are all non eternal and are produced by fire, although as regards the atoms this is plainly contradictory The truth of the theory, so far as it has validity, must rest on the fact that the qualities of earth can be changed by the

[1] VS, *l c*, PBh *l c*, SP, §§ 24 85 TK, *l c* TS, § 21 BP 102 103. The assignment of one quality only to each atom is rejected in VS iii 1 64 9

[2] VS *l c*, *PBh*, p *106* *SP* §§ 24, *86*, *TB* p. 79 TK p 4 TS § 2[1], BI 103 104, TR, p 142 VBh iii 1 56, [1]7, VVT p 150

[3] Athalye, TS., p 156 cf *Hindu Realism* p 164 Raghunátha (*PTV* pp 35 36) holds that *touch, odour, and flavour* are there only to parts of substance

[4] PBh, pp. 106, 10 TK pp 4 5 TS § 24 BP 105 106, TR, pp 155 156, NSára pp 11, 131, 132 VSM, pp 174 ff VM, p. 435

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[1] VS v 1 1 ff PBh p 104 SP §§ 2 83 TB p 8 TK p 4 TS § 19 BP 100 101 TR. p 14[a]

[2] VS *l. c* PBh p. 10 TB p 9 SP §§ 83 84 TK p 4 TS § 20 BP 101 102 TR. p 14[a]

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VS *l c* PBh *l c* SP §§ 24 80 TK *l c* TS § 91 BP 107 108 The assignment of one quality only to each sense is rejected in NS i 1 64 9

[2] VS *l c* PBh p 106 SP §§ 2 86 TB p 74 TK p 4 TS § 90 BP 103 104 TR p 142 NBh 1 1 56 5 NVT p 150

[3] Athalye TS p 156 cf *Hindu Realism* p 101 Raghunâtha (PTN pp 35 36) holds that to odour and flavour adhere only to parts of substance

[4] *PBh* pp. 106, 10 TK pp 4 5 TS § 27 BP 105 106 TR pp 150 156 NSâra pp 11 131 132 NSM pp 154 ff NM p 433

application of heat, while in the view of the school water, air, and fire are not so affected when water or air is heated, the result is due to the presence in them of fire elements not to change of their fundamental qualities But the mode of operation of the heating process is the source of one of the profound differences between the Vaiçesika and the Nyaya in their later developments. When the black pot is burned, the Vaiçesika hold, the pot is destroyed its binaries even being dissolved, the action of fire produces in the individual atoms a red colour and then joins the atoms to form a new compound which ultimately results in the new red pot If this were not so there would not be the possibility of baking the internal atoms of the pot and the reason why we cannot see the process of dissolution and reassembling is its extreme rapidity the whole occupying a time variously put at five nine ten, or eleven moments This view of atom baking (*pilu paka*) which gives the Vaiçesika school a nickname is clearly incompatible with original colour even in the atoms The Nyaya view is the sensible one that the pot remains identical as it seems to do, and as is shown by the fact that pots above it do not fall down while the difficulty of the penetration of heat is answered by the common instance of the boiling of water in a pot This view of pot baking (*pithara paka*) is not inconsistent with original odour in the atoms

All these four qualities are perceptible only under certain conditions as we have seen and while aggregates of earth water, and fire are directly perceptible air according to the older view of the schools is inferable only though the modern Nyaya holds it to be perceived by touch disagreeing with the view that perception implies manifest colour The inference rests on the temperature of air as neither hot nor cold which

differentiates it from fire or water, while lack of colour negatives its being earth Nor is it all pervading like the other four substances, and mind is excluded by its atomic size which would prevent any quality in it being known Hence we infer a distinct substance, air[1]

Of the products of atoms the sense organs, the tip of the tongue the extremity of the nose, that of the pupil of the eye, and the epidermis, composed of atoms of water earth fire and air respectively, are imperceptible as a condition of their functioning, they all act by contact[2] There are bodies[3] of earth fire water and air in this world and in those of the deities of fire water and air respectively, an adaptation to popular mythology of the more primitive hylozoism of Jainism which ascribes souls to the minute particles of the elements Body is the seat of the enjoyment of pleasure and pain by the self, it is a final compound as opposed to a compound which is part of a greater whole and it possesses motion The Vedanta view of the human body as composed of three or five elements and Prabhakara's preference for four are rejected, bodies in this world are of earth only, either womb born like viviparous and oviparous animals or not so born, including on one view plants[4] as well as insects and such sages as acquire by their merit bodies without physical birth[5]

[1] PBh, p 47 Kir pp 82 6 NBh pp 155 156 NV, p 71 TSD p 9 SM on BP 42, PSPM p 99 SS v 89 allows perception so the Mimāhsā accord ng to NsM, p 28 Raghunātha PTN, pp 41

[2] Above, ch ii § 2, ch vii § 2, NsM, pp 59 60 The Sāmkhya *derives the organs from egoism* SS. i. 61

[3] VS iv 21 3 PBh p 27 Kir pp 56 ff Laks, pp 1 ff, SP §§ 192-4, TB, pp 65 7, TK p 3 TSD § 10 TR. p 121, NS iv 1 29 *Cf* SS i, 17 19

[4] Plants are denied bodies by PBh, p 28, Th, p 2 *Padārthatat namālā* p 21

[5] VS iv 2 5-10

As objects[1] (*ā.raya*) other than bodies earth appears as the whole of inorganic nature water as the sea rivers hail &c. Fire products are terrestrial the fuel being earthy in character celestial such as lightning gastric the fire of digestion and mineral. Gold cannot be earth because it remains fluid under extreme heat nor water for its fluidity is artificial nor air because it has colour It must therefore be fire earth particles accounting for its absence of light and heat Another division rests on the degree of manifestation of colour and temperature both are fully present in the rays of the sun colour in the moon beams temperature in a red hot potsherd and neither in the lustre of the eye Aerial products include wind and in the Nyaya view the vital air (*prāṇa*) which the Vaiçeshika view illogically makes a separate division beside bodily sense and object It covers the five *prāṇa, apāna samāna udāna vyāna* noted in the Upanishads and in the Vedanta but made of little account by the other schools One doctrine assigns the five in order to the lungs rectum navel throat and the body generally

3 *Ether and Sound*

Ether[4] has sound as its specific quality and is the inherent cause of sound The two stand in a unique relation the reference of sound to ether is established

VS 2 1 4 2 1–5 NS 1 64 PBh pp. 7 8, 35 36, 38 39 44 SP §§ 11 14 4 7 Kir pp. 41 88 TB pp 69 71 Th p 1 TS §§ 10–13 BP 35–44 TR pp. 134 One Mīmānsā view makes gold a separate substance PSPM p 94

[2] VSU 1 3

[3] Cf Oltramare 1 39ⁿ 9 Deussen *Allgem Gesch* I 1 348–50 *Vedānta* ch xxv 1 Keith *Sānkhya System*, p 80

[4] PBh pp 58 59 SP §§ 15 8 TB pp 4 5 TK p 3 TS § 13 BP 44 45 Nyāya 3 30 TR pp 13 Kir §§ 10b 14

by a process of exhaustion which establishes that sound is not connected with any of the four atomic substances. But as a quality it must inhere in some substance and experience shows it is not the self It is necessary therefore to infer a substance ether (*ākāśa*) to be the substratum of sound The Sāṁkhya argument that ether serves as the place of the coming in and going out of products presumably as medium for the movement of sensible things is decisively rejected by the *Vaiśeṣika Sūtra*[1] and the argument for its existence both there and in the Nyāya is based on its relation to sound alone It is one motionless and omnipresent the Nyāya[2] expressly arguing that this is not contrary to the existence of atoms as the ether is unrepelled and does not obstruct It is eternal and possesses the qualities also of number as a unity, and dimension as omnipresent of individuality conjunction and disjunction These are manifested in the propagation of sound As the atoms constitute the sense organs for the apprehension of the qualities which are present in atomic products so ether provides the sense organ for the apprehension of sound The ether enclosed in the cavity of the ear in contact with the ether without affords the organ but it differs from other sense organs in that it possesses its quality sound in normal not in latent form[3]

Sound is divided into articulate and inarticulate according to its character and according to its mode of

[1] II 1 20–31 NV I 1 7. the effort (Candrakānta on II 1 30 Cf Jatterji *Hindu Realism*, pp 165 166) to controvert the clear sense of the Sūtra is needless *Gaganādhāra* reading of II 1 30 is clearly wrong and PB *l c*; NK, p 99 Kr p 85 only refer to ether as all pervading One Mīmāṁsā view would make sound a substance PSPM p 91 Ether is denied by Raghunātha, PTN pp 8 10 Cf Çaṅkara II 2 24

[2] IV 2 21, 22 VS VII 1 29, IV 1 6.

[3] NS III 1 74 75 For the Jain Sāṁkhya III 1 Mīmāṁsā view see ÇV pp 490 ff NV, III 29 ff *Padārtharatnamālā* p 6

production into that produced by conjunction as when a drum is struck by the hand, that produced by disjunction, as when a reed is split and that due to sound The last variety is requisite to account for the hearing by us of sound The organ of hearing is the ether in the cavity of the ear, it cannot without loss of identity go out to its object and sound therefore must be propagated from its original source in a series of sounds in a manner likened either to wave motion (*vicitaran gunyaya*)[1] or to the filaments of the Kadamba[2] which shoot out in all directions from the plant When a drum is beaten by the hand the inherent cause of the sound produced is the ether, the non inherent cause is the conjunction of the drum and the ether, the instrumental cause the conjunction of the hand and the drum When a reed is split the separation of the ether and the parts of the reed is the non-inherent, the separation of the parts the instrumental cause The sound heard and those intervening between the first and last have the sound as the non-inherent and the wind as the instrumental cause[3] On the destruction of sound views differ[4], Vatsyayana attributes it to contact between sound and an obstructing substance a view which conflicts with the Vaiçesika tenet that a quality like sound cannot have another quality like conjunction, Vacaspati, therefore, makes the contact one between ether and an obstacle and Çridhara one between air as the instrumental cause and the obstacle. A later doctrine holds that the penultimate and the ultimate sounds mutually destroy each other but this is rejected by

[1] VSV ii 2 37, ÇV, pp 424, 425
[2] NV, p 289, VSV &c
[3] Vs ii 2 31, PBh, pp 287, 288, SP §§ 49, 105, TA, p 13 TB 1p 82-5, TK, p 13, TS § 33 BP 164
[4] NBh ii 2 31, NVT and NVTT, *ad loc* NK, p 289, TB p 84

Keçava Miçra on the sound ground that they cannot be contemporaneous at the last and the destruction is therefore attributed to the destruction of the penultimate obviously an unconvincing result

These speculations which are stoutly maintained against the Samkhya view that the organ goes to the sound or the Jain that sound travels bodily to the organ or the Mîmansâ which holds that air vibrations affecting the air in the ear manifest the eternal sound are not supported by any experimental evidence a striking proof of the *a priori* character of the speculations of either school They stand however in essential relation to the doctrine of the momentary existence[1] of certain qualities and of motion which as has been seen the schools adapt from Buddhism in the new form of the doctrine the lack of connexion between the moments is removed by the view that each sound comes into being in one moment exists in the next during which period the second sound comes into being and is destroyed in the third moment a conception which renders it possible to conceive of a real series of sounds and applied to the qualities of the self and motion renders continuity effectively possible.

4 *Time and Space*

Time[2] is defined in the syncretist school as either the cause of our use of temporal expressions or of our knowledge of the ideas of priority and posteriority simultaneity and non simultaneity soon and late &c It is one in number omnipresent in dimension individual in character and possesses the qualities of conjunction and

[1] See cl v § 5

[2] PBh pp 63 64 164 ff SP §§ 15 9 TA. p 5 TB pp 76. 7 TK., p 3 TS § 15 Bl 45 46 Kr pp. 114 91 TR pp 138 139 KhK i 179 80 Ragh unâtha (PTS ii 1 3) refers both to God

disjunction The past of an individual is the time characterized by its destruction the future that characterized by its precedent non existence the present is the time whose future existence is destroyed and whose own destruction is about to come

In the *Nyaya Sūtra*[1] the question of the existence of the present time is discussed in answer to the objection that when an object falls we know only the time through which it has fallen and the time through which it still will fall The reply is that without a present there can be no perception and no knowledge, and past and future would have no meaning or existence In the *Vaiçeṣika Sutra* whence as usual the syncretists borrow their definitions there is further the pregnant doctrine that time is a cause for transient things in which it exists but not for eternal things in which it is not found This is a clear recognition of the fact that the eternal substances do not exist in time while their qualities and motions have only existence there with all the products But the term cause must not be understood in the sense that the Vaiçeṣika adopted the popular view that time was a great cosmic power which caused movement of things[2] this is wholly contradictory to the view of the Sutra which never attributes the origin of motion to time as well as to the harmonious tradition of the school Time is a cause only in the loose sense of that term which is affected in the school namely as one of the many conditions which are necessary to the existence of a thing, it belongs to the category of general instrumental cause[3] as opposed either to the

[1] II 1 39 43 NBh pp 87 90 NV pp 85 8 NM p 136 II 6 9 v 2 26 VII 1 25 27 29

[2] Cf Hattori *Hindu Kosmos* pp 54 8 167, *contra* M Walleser *Die Idee der Zeit* 1 128-33

[3] PBh, p 29 Kir p 58 above ch VI § 1

specific instrumental cause (*karana*) or the inherent or non inherent causes

The nature of the conjunction which results in the conceptions of priority and posteriority is made clear by the stock example of the school If we say, 'Here now is a jar' we operate with a conjunction of a special character, that of the sun and the jar, this conjunction is not like that of material objects or their parts, and it is due to some reality which must be inferred and is inferred as time So again, if we make a youth our starting-point the cognition of priority is produced in the case of an old man whose birth precedes that of the youth by many revolutions of the sun[1] These motions of the sun are the conditions which mark the divisions of time, such as moments months, and days It is these conditions which render time apparently *manifold instead* of one as it really is, and help to create the impression held by some of the Nyaya school that time was, as claimed by the Buddhists, merely a series of moments a view, which as we have seen the Nyaya and Vaiçeshika repudiated as a general principle, but adapted with modifications in their theory of the character of all non eternal existence *in the shape of the theory* that *every* quality and action lasts for three moments only There remains one obvious difficulty in regarding time itself as eternal when its presence in eternal substances is denied But in both cases the term 'eternal' denotes that which has no cause save itself and really exists and which in the temporal terms which we cannot avoid in use can

[1] The process is a conjunction (*prathyaya h*) through inherence of the motion in the sun which is conjoined with what is conjoined, viz the youth, Kir p. 11o, VSU ii 2 6, NK, p 34 negates this, and (p 65) *uses bodily conditions as different to give inference of time* The number of conjunctions with parts of space and time is given as the basis of proximity and distance, TB, i 42, PBh p 164, NK, i 165

only be described as eternal unless we frame the concept —*though it can have no concrete meaning for us*—of that which is not in time at all

Time therefore is regarded as a fundamental reality which is the basis of *our* time knowledge with which all transient existence is bound up Thus time is absolutely *a priori* for the school as much as for Kant but as consistent realists they do not ascribe time to the product of mental activity in any form but hold that it imposes its nature on mind

Space[1] Kanada tells us is that which gives rise in respect to two coexisting objects of the recognition that one is distant from the other in more technical language it is the proximate instrumental cause of our use of terms such as or of our conceptions of far and near according as we view the matter from the point of view of our speech or of the thoughts which it embodies Like air space is a substance which is independent and eternal in the sense in which all substances possess that characteristic like existence it is one and possesses individuality Like time it is all pervading and possesses conjunction and disjunction and its multiplicity is also due not to its own nature but to the divergence of effects Our conception of direction as east is derived from the conjunction of the sun as past future and present and similarly with other directions they are given their character by reference to the sun which thus plays with regard to space an analogous part to its action in regard to time Similarly like time space is inferred on the ground that without some such reality it would be impossible to explain our ideas and language Space also is a cause but only in the general sense of

[1] VS i ° 10–16 PBh. pp 66, 67 161ff SP §§ 17 80 TA p 6 TB p 77 TK p 3 TSD §16 BP 43 44 K r., pp 1 1 8 TR pp 138 139 Luky p

a part of the conditions necessary for any existence as is time with which it therefore is classed as part of the eight or nine general causes.[1] That space is a reality[2] which holds things in their place comparable to the power of gravitation regarded as an independent reality and not merely as an attribute of things, is certainly *not the conception of any period of the Vaiçesika* school

The distinction between space and time is made clear in the texts which expressly counter the suggestion that priority and posteriority in time and space should be attributed to one and the same cause[3] The condition (*upadhi*) which diversifies time is production or action, that which diversifies space is contact with objects occupying space (*murta*) The old man may be near the young man in space but prior in time Or again the relations of time have a certain degree of constancy (*niyata*) which is denied to those of space the true explanation of this doctrine can be seen from one of the examples which illustrate it when one thing is present in time with reference to another thing the latter is also present in time with reference to the former while a mountain which is at one time to the east of us may later be to the west The idea thus somewhat crudely expressed is clearly that there is a generic distinction between simultaneity in time and side by side relations in space though the example cannot be taken as happily framed or accurate

From ether space is clearly distinguished in the

[1] Above ch vii § 4

[2] Chatterji, *Hindu Realism*, pp 57 61, 167, 168 The real view of the schools has more affinity with the modern doctrine of space and time as *pure intuitions* Pringle Pattison *The Idea of God* pp 267 364

[3] VSU ii 2 10

system by the fact that the former has the specific quality of sound while the latter has no specific quality at all, ether produces one effect only sound, space is a general cause, ether has affinities to the atomic substances with which it forms the class of elemental substances (*bhuta dravya*) What, however is the precise ground on which this distinction is set up? The answer is not obvious and it has been suggested[1] that in fact Kanada accepted only one reality variously called, according to the difference of its effects and conditions, ether time and space a view supported by the fact that though he establishes the difference of ether from the atomic substances self and mind he does not explain the difference between ether time, and space, nor differentiate the two from other substances But this is to ignore the clear meaning of the Sutra. It is equally unavailing to assert that space is really a force holding things in place in ether which is really space against the driving power of time The true explanation of the distinction doubtless lies in the inherited differentiation of ether as the substratum of sound and the necessity of expressing by a new term the idea of space[2] which ether was not well fitted to convey in view of its connexion with the concrete quality sound which brought it into analogy with the atomic substances.

[1] Candrakānta on VS II 2 12 This is the Sāmkhya view SS II 12

[2] In NS II 1 22 *dikdeça* are found with time and ether as general causes On the perceptibility or inferability of time and space see NM, pp 136–41 Çankara Miçra (V 2 2o) calls space a non inherent cause against PBh, p 2o

CHAPTER IX

THE PHILOSOPHY OF SPIRIT

1 Soul Mind and Body

THE arguments for the existence of the self or soul (*atman*) are presented in the *Vaiçesika Sūtra*[1] in a form to which nothing in substance is added later The experience of the objects of sense he argues proves the existence of something other than the senses and their objects and expiration inspiration the closing and opening of the eyelids life the movement of the mind the affection of the other senses—pleasure pain desire aversion and volition are the evidential signs of the self The necessity of resort to proof by a sign is due to the fact that in the Vaiçesika view as opposed to that of the Nyaya there is no possibility of direct perception of the self which must therefore be determined by inference in the form of exclusion of other possibilities such as the attribution of consciousness to the body or the senses or the vital spirit or the mind or even the objects themselves

The claim that consciousness is a mere function of the body which was the Carvaka view and must have been

[1] i 1 1 6, 18 19 ii 4 1 v 1 F v 1 22 with commentary, NS i 1 10 iii 1 1 27 ii 1 78 NV pp 338 49 cf PB pp 69 70 99 with NK TA pp 6 7 TB pp 62 5 7 TK pp 3 4 TS § 17 BP 47 53 SP §§ 14 51 154 155 NSara pp 36 9 TR pp 119 120 Cf a summary of the Vaiçesika case in ÇV pp 393 400 and the Mimānsā case pp 401 Çankara on BS ii 3 51 commentary on SS iii 20–2 v 129 (130) See also NM pp 429 3

popular, to judge from the anxiety of the schools to refute it, is met in a variety of ways Consciousness must exist then in the elements which make up the body, but this is contrary to fact, if each part has consciousness, the result would be confusion, for there could be no agreement among the several consciousnesses to produce a united effect such as is actually seen in our consciousness Moreover if body had consciousness, why not the water-pot since it is composed of the same elements as body, and should equally well be conscious? If, again, consciousness were a property of matter, it, like colour, would endure, but we find none in a dead body even immediately after death, and even in life cases of unconsciousness occur How again can a man on this supposition recollect in age what he saw in youth, for his body is completely changed? If it be answered by the fact of causal continuity, it is replied that in that case the son should know the experiences of his father Without memory too existing in something else than the body, how could a child perform such instinctive acts as that of sucking? Moreover, consciousness is essentially of an object which is not itself, the body is recognized as that which is used by that which belongs to, something not itself It would be absurd that it should be an object of its own property Moreover, the whole moral order rests on the difference of the self from the body and its persistence through many different bodies, and the denial of it would be direct impulse to immoral deeds

The same organs as little are adapted to be the seat of consciousness Apart from the fact that they are in the ultimate issue matter and therefore, open to the same objections as are raised to the body their essence is to be instruments and an instrument implies an agent who uses it, a fact necessary to explain vision with two

eyes. Again if a sense organ be destroyed we still have the recollection of the thing experienced by its aid We remember objects also though contact between them and the organs has ceased We have also co operation of senses which *ex hypothesi* would be impossible, as when on seeing a fruit we remember its flavour Still less is the vital spirit the self for it is no more than the relation of the self to its material environment the body More generally, consciousness cannot belong to an object, else there would be no memory after consciousness had been destroyed by the destruction of the object Nor has an object any sense of its own position or of the pleasure it causes, nor does it move with intelligent purpose Nor could there then be the consciousness which is admittedly experienced I have seen the colour perceived the taste and am feeling the touch', which presumes a power of synthesis impossible in varied objects or in the sense organs

But consciousness cannot reside in the mind unless that term be used to mean some reality which has cognition by using some instrument other than the senses in which case it amounts to what is in the Nyāya-Vaiçeshika called the self and the instrument is what is known in that system as the mind The existence of an intermediary between self and the senses is proved by the fact that if there were direct relation, we should have simultaneous cognition of all kinds and equally simultaneous memory, and further both would always be present which is contrary to fact, and drives us to accept some atomic substance to mediate and secure successive perception and recollection Further the objects of inner sense our cognitions, feelings, and volitions, must be perceived by the self by means of an instrument which is mind

Nor, again, can there be accepted the doctrine that

cognition is a momentary self cognizing existence as held by the Buddhists[1], this is contradicted by memory, and the idea that of two ideas related as cause and effect each has the power, though unconnected of conceiving itself as effect or cause as the case may be is purely absurd

Positively, then, we can infer from cognition as a property that it resides in the substance self Moreover, as from the motion of the chariot we infer the existence of an intelligent agent, so we infer such an agent for the body from its activity and cessation of activity which serve to attain the desirable and avoid the undesirable Breathing and winking lead us to infer an agent from the healing of bodily wounds we infer an agent like the master who repairs his house from the action of the mind towards contact with sense organs apprehending desirable objects an agent must also be inferred the same result follows from combined perceptions and recollections the qualities of pleasure and pain, desire and aversion and effort must belong to a subject these qualities cannot belong either to the body or the sense organs, for the following reasons They are always experienced along with the feeling of the self pleasure means nothing save for a self and so with volition they do not extend to the whole of the body or the organs pleasure or pain may be felt in one part only they do not last as long as their substratum all these states are evanescent, they are not perceptible by external senses like corporal qualities The existence of the self as a distinct substance is also established by the fact that it is spoken of as I which is quite different from any

[1] NV, *l. c.* contains an interesting refutation of the Buddhist suggestion of *sa rūpya* adducing against that view the Sūtra of the burden bearer Cf Çaṅkara BS II 2 25 28 SS 2 41 NVT p 55 NVTP I p 395-400

other object, one man's body another can see but not his self No scriptural proof is therefore essential for the *demonstration of the existence of the self*

But there is not one self only which by differentiation becomes many as on the Vedanta theory where ignorance causes the one Brahman to appear as many individuals[1] This theory is guilty of the paralogism that it ascribes *ignorance to that which is pure intelligence, or alternatively* it assumes ignorance in the individual souls which come into being only through ignorance The plurality of selves is proved by the variety of experience and condition each self has its own series of experiences through which it remains one while it has no knowledge of the experience of any other self Nor is there any risk of the cessation of the world by the complete emancipation of all the selves for their number is infinite They possess also individuality as follows from their number, and they are in dimension all pervading as is proved by the upward flaming of fire and the horizontal blowing of air These are contrary to the property of gravity and can be explained only by the operation of the unseen principle (*adṛsta*) inhering in the self the latter being all pervading Again each self is unproduced and eternal, the argument that being so it can never be released is rejected on the ground that emancipation can be obtained through dispassion arising from recognition of the evils inseparable from the objects of enjoyment in one who recognizes the eternal self The self also has the properties of conjunction and disjunction since pleasure and other properties arise from the conjunction of the self and the mind and destruction

[1] Candrakānta on VS iii 2 19 21 thus interprets the Sutra Contrast SS i 149 64 PSPM pp 30 3 SSS vii 38 39 makes Kumārila accept the Vedānta view one of many signs of its late date

of such experiences must be brought about by disjunction Accounts later than Praçastapâda add little to his outline the all pervading character[1] of the soul is also established by the more empiric argument that if atomic it could not feel pleasure or pain simultaneously in different parts of the body if of intermediate size it must either be larger or smaller than the body in which case it will be unable to occupy the body exactly as it does and should do if of the same size it will be too small for the body as it grows from birth onwards not to mention the difficulty of it changing in dimension from birth to birth The objection to its all pervading character that it should then leave all experience is answered by the fact that the self has experience only by contact with mind

Mind[2] thus plays a most important part it is through it that are mediated all the sense impressions from outer sense which else would all be in immediate and eternal conjunction with every self and it explains the recollection of these impressions moreover it is the direct means of cognition of the self's own qualities of cognition feeling and volition and it explains our memory of them It is the real ground of individuation for though each self like each mind is supposed to be distinguished by a peculiarity (*viçesa*) it is impossible to see any distinction other than that based on mind[3] The mind must accompany the self in all its peregrinations through bodies as a condition of the identity of the latter and of its power to exercise in a new body such functions as

TSD p 13 Cf Çankara BS i 2 34 6

[2] VS i 2 1 3 v 1 23 vi 1 2 NS i 16 20 2[7] 26-34 41 60 3 *with commentary* PBh p 89 NK pp 90-3 SP §§ 90 8 TA p 7 TB pp 77 8 TK p 4 TSD § 18 BP 85 NSâra p 3 TR pp 124 1[05] PSPM pp 76 8 NM p 49

[3] Cowell SDS p 148 n 6 doubts if soul has particularity

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[2] VS 3 2 1–3 vi 1 23 vii 1 2 NS 3 1 16 11 3 20 23 26–34 41 60–3 with commentary PBh p 89 NK pp 90–3 SP §§ 20 8 1A p 7 TB pp 77 78 TK p 4 TSD § 18 BP 85 NSāra p 3 TR pp 194 195 PSPM pp 5–3 NM p 49

[3] Cowell SDS p 143 n 6 doubts if a ul has part cularity

sucking There is but one mind to each self only thus can we explain the fact that there are not many simultaneous cognitions and volitions the apparent simultaneity in such cases is always due to rapidity of motion of the mind just as we see in the whirling of a firebrand a circle of light not a series of separate points. The sight and taste perceptions of treacle are not simultaneous but in extremely rapid succession A final argument against this primitive suggestion of panpsychism is given to meet the case of the movements of the parts of a snake on its being killed These are due to the impact of the chopper the rapid motion of its mind or the entry into some part of it of a soul which has been liberated from its body

In dimension[1] mind must be all pervading according to one Mimaṁsa view on the ground that it is a substance like time and has no special quality This must however be denied if it were so it would have all sensations simultaneously and permanently so that cognition would never cease and sleep would be impossible Moreover mind would then never be in contact with the self since two all pervading substances can never come into contact for if they did they would produce a twice all pervading dimension which is absurd There would therefore be no experience of cognition feeling and volition which depend on the contact of mind and self If it is argued that contact between the self and the object would suffice it must be pointed out that in this case the cognition would appear at the place of the object outside the body while if the contact were of the self and the organs sound would be impossible since the self

[1] TC i 762 ff Çaṅkara makes mind one only as subtle and limited in size but is inconsistent see Deussen Vedānta cl xxv so SS iii 14 v 69 71 Prabhākara thinks it atomic PSPM 177 Cf NSM pp 9 60 Raghunāthā (PTN pp 10 15) denies its atomic size.

can never have contact with ether which is also all pervading Sleep also, it is argued, would be impossible if mind were all pervading, but the reason given why it is possible on the Nyaya view is not convincing, since it involves the arbitrary assumption that mind can in sleep shut itself off from the self in the vein styled *puritat*. If not pervading, the mind must be of intermediate magnitude, which would mean that it consisted of parts and was perishable, or of atomic size it must also possess motion and extreme velocity and the qualities of conjunction and disjunction which are seen in exercise at the leaving or entering a new body, and those of priority and posteriority common to all atomic substances It is of course individual and as unproduced eternal

There are obvious difficulties in this strange atomic substance of corporeal (*murta*) character which is invoked to explain the activity of mind in the modern sense of the term It is a minor point that Gautama[1] did not class it as an organ of sense (*indriya*) and that Vatsyayana is compelled to read its inclusion in this class into the Sutra which in fact classes it only as an object of proof The argument of Vatsyayana that the mind was accepted as an organ in other systems and not being expressly stated not to be an organ by Gautama must be taken as one is sufficiently refuted by the retort of Dignaga[2] that the other organs which Vātsyayana mentions should not have been referred to if that principle were valid but the omission in Gautama is of no great importance for the conception of the mind which if an organ, is one of a very peculiar kind A more

[1] 1 1 9

[2] *Med Log* p 87 According to NBh p 16 mind differs from the organs as being concerned with all objects as without specific quality and immaterial (*abhautika*) but VV p 40 accept the first differentia only To call it attention (*Six Syst* p 518) is rather misleading

serious objection is suggested by the raising of the question whether an instrument is needed to perceive cognitions feelings and volitions since they can be self conscious[1] This is answered by insistence on the fact that the agent the instrument and the object are three essentially different things which cannot be combined in one. The *agent is something which is not urged on* by something else, the instrument is a thing employed by an agent, the action does not exist when the instrument is already in readiness a view supported by the doctrine of the *posteriority of effect to cause* We must therefore, have a self, an instrument, and the cognition, feeling or volition which is an action in one sense in one sense an object The Prabhakara view that on the occurrence of a cognition it becomes self luminous like a lamp and the soul becomes manifested as the substratum of and the notion of I in the cognition like the wick of the lamp is rejected on the ground that in the visual cognition This is a pot there is no idea of cognizer or cognition and that when these do arise there is a direct mental cognition of the object as qualified by the cognition and the cognizer, as I know the pot On the strength of this analysis as it seems is based the Nyaya[2] view that the self is directly apprehended by mind in such a cognition as well as inferable while the strict Vaiçeshika[3] view appears to be that in such a cognition we have no direct cognition of the self but merely ground for an inference though Çridhara[4] admits the

[1] NK p 96ff NV pp 66 71

[2] NVT i 1 10 Laks pp 7 8 NSāra p 36 makes it inferable only see NV pp 344 7 in NBh p. 10 it is not perceptible

[3] See Candrakānta's exposition of NS i 1 [illegible] 18 TP, p 119 refers to inference only so PBh p [illegible]

[4] NK p. 91 perception is assisted pp 21 91 so Kumārila ÇD i 101 against ISPM ii 7b 80 Cf the Anuvyavasāya, NM i 4[illegible]

possibility of the Vedanta view of the self as knowing itself, and like Cankara Miçra[1] approximates to the Nyaya view. But both schools are agreed that mind is inferable only on the ground given above.

This unhappy conception of a material atomic[2] substance as an instrument in perception appears thus to have been largely due to the false desire to secure an instrumental cause as well as to the wish to explain the succession of impressions and memory and the imperfect character of both. Mind is thus active in the whole field of our perception including the extraordinary perception which recognizes invariable connexion (*jnana lakshana*) and in perfected sages it reaches still higher uses for by contact with their merit it enables them to see all reality even the self directly. It must be understood to be the instrument of thought of the reflection (*paramarça*) of inference but this side of its activity is subordinated if not ignored in the schools. On the other hand it serves obviously as a mode of connexion between matter and spirit for it intervenes between the material if imperceptible sense organs and the self and it may best be appreciated when compared with theories of psychophysical interaction which ascribe to the physical side much of the necessary conditions for remembrance.

With the body the self stands in a temporary relation only for as will be seen the body serves only a passing purpose and arises from merit or demerit of the self.[3] Unlike the Vedanta and Sankhya the Nyaya and Vaiçeshika do not picture the self as ever accompanied

[1] VSU. iii 2 14 16.

[2] The argument that it has no magnitude (*Hindu Realism* p. 90) is untenable.

[3] NS. iii 2 64 78. iv. 44 45. NBh. NV. iii 1 19. VSU., VSV. v. 2. 1. vi. 10. PBh. pp. 29 81 308 309.

by a microcosm of the body in the shape of the subtle body,[1] it passes from one frame to another with only the aid of the mind which as atomic is beyond perception and therefore cannot be seen leaving the body on death

The self again is wholly different from the self of the Vedanta or Kumarila for cognition is merely a quality manifesting itself through mind transiently and feeling and volition which on the Vedanta theory have no place are equally qualities Of the qualities[2] of the self cognition has already been examined pleasure is defined as that which is felt as agreeable by all a definition amended to apply to individual tastes in its relation to the individual A more fundamental doctrine asserts that it is what is desired for its own sake as an ultimate aim while pain is what is shunned for the same cause Pain is positive not merely absence of pleasure and can co exist in the same subject with regard to different objects though it would appear that co existence must really be swift succession Pleasure however is always closely accompanied by pain Desire according to Praçastapada consists in seeking to obtain a thing not yet acquired for one's own sake or that of *another it*[3] *may be directed to the supreme good* freedom from pain or pleasure or to some object as a means to something else or it may aim at an action which can only be directed towards an object which is capable of attainment by human effort no one desires an action if the end is unattainable by man Aversion

[1] Rejected also by Kumārila ÇV p 393 Cf SS v 103 The Vindhyavāsin of Kumārila is clearly not Īçvarakṛṣṇa nor any true Sāmkhya writer

[2] See PBh pp 209 63 SP §§ 39 43 91 8 TA p 13 TB pp 85 91 TK pp 18 19 TS §§ 66 9 BP 145 5[9] VS x 1 1 7 proves pleasure and pain not to be cognition in any form cf NM pp 4 6

[3] SM or BP 146

which includes anger and similar emotions is directed either to pain itself or to an object whence it can spring As desire and aversion spring from pleasure and pain so they find expression in volition (*prayatna*) effort (*utsaha*) or action (*kṛti*) which is the disposition of the self towards carrying out an object It is of two kinds, on the one hand it is activity (*pravṛtti*) generated by the desire to obtain what is pleasant on the other inactivity (*nivṛtti*) generated by the desire to avoid the painful but in a different sense it is the vital force (*jīvana-yoni*) which is the cause of expiration and inspiration but which unlike volition is not even perceived by mind[1] The classification as akin to volition is instructive it could not be admitted as physical without introducing an alien element into the self The cycle is completed by merit and demerit which are produced by actions good or bad and themselves generate pleasure and pain they form together the unseen principle (*adṛṣṭa*) which moulds man's body but they are not merely positive and negative demerit is produced not merely by omissions but by positive evil deeds (*pāpa*)[2]

The last quality of the self is impression (*saṃskāra*)[3] which is the result of original perceptions of every kind and is the explanation of memory It is impossible to refer the latter to the original impression as the cause since the impression is transient nor can the absence of the impression produce the result if this were the case as absence is one and the same we should not find the difference which we do observe between the power of

[1] TK *l c* BP 149 150 Cf on *jīvana* and mind NM p 493

[2] VS vi 2 1 16 PBh pp 272 273 280–2 SP §§ 48, 103 104 TA p 18 TB p 85 TK p 19 TS §§ 71 72 BP 161 4 NSāra p 30 TP p 148.

[3] PBh p 266 TA p 13 SI §§ 4 10[3] TB p 80 TK p 19 TS § 5, BI 158 See NS i 1 13ff. VS ix 2 6 NM p 3

with their disappearance action ends and with it birth and the sorrow consequent thereon In Kanāda[1] the system is less simple the obtainment of supreme felicity is declared to be due to merit (*dharma*) but also to be due to the knowledge of the categories by means of similarity and dissimilarity, that knowledge being produced through special merit Again[2] he declares final release (*mokṣa*) to be in the separation of the self from the body without entering another body, in the absence of merit or demerit which would produce a subsequent embodiment The process is more fully expressed by Praçastapāda[3], the desire to obtain the release leads one to acquire knowledge of the categories from a master this knowledge terminates ignorance hence love hatred, corresponding to the fault of the Nyaya are extinguished thus no further merit or demerit can arise the old merit and demerit are extinguished as they have produced their effects the subject remains free from desire or attachment to the body[4] and finally his merit ceases having produced the joy of the contemplation of the self he is done with the body and every result of past activity, and rebirth is impossible The knowledge of the truth thus is the real cause the merit only a contributory but Kanāda's words rather ascribe the origin of knowledge to merit and serve to remind us that the process is one of great complexity for a man is never free so long as he is not released from the effects of his deeds.

Supreme felicity, however is variously interpreted[5] The Buddhist view finds it in the cessation of all know

[1] i 1 2, 4, *PBh* pp 6, 7 [2] v 2 15
[3] pp 281 282, *NK* pp 242 243
[4] i 1 18 in 2, 63 5 on disappearance of *liṅga* a term of the Nyaya Sūtra ii, Vaiç ii 109 ff
[5] *NSt* i 1 4 *NK* pp 3 4 *Kir*, pp 6 ff *NM*, pp 61 ff

embodied It is inconceivable that this should be uncaused[1] for we realize the endless chain of cause and effect as in the series of seed and shoot, nor can there be a single cause whether the absolute Brahman as in the Vedanta or the nature of the Samkhya for the effects are various and so must be their causes Nor can the cause be something visible for men universally offer sacrifice to attain heaven and this must presume an intervening stage of merit so acquired since plainly the sacrifice cannot produce its distant effect without an intermediary Nor does the desert reside in what is its fruit for that is apportioned to each individual and enjoyed by it The body of man therefore must be the fruit of previous merit or demerit and there is no ground on which we can conceive a break in the series of embodiments Confirmation may be found for belief in previous embodiment from the fact of instinct as when a child sucks without teaching or more generally from memory of past births[2] which seers enjoy and which exist in us as impulses and potentialities lying hid beneath our normal selves and explaining the infinite possibilities of our nature

Our deeds therefore leave ever their impressions behind and merit and demerit regarded as our actions when they are performed and not in the more general sense in which they include impression[3] spring from impressions and give birth to impressions again in an ending series Man does not necessarily remain in the human state[4] he may descend into lower bodies be

[1] NS iv 1 22 with commentary

[2] VSU v 2 18 vi 2 16 cf YS i 39

[3] The distinction in *Hindu Realism*, pp 103 9 between impressions and merit and demerit is ingenious but out of harmony with tradition

[4] NBh iv 1 55 cf YS iv 2 5 with commentary YVT, p 441 On transmigration (*pretyabhāva*) cf NS i 1 19 with NBh NV iv 1 10

a denizen of hell or rise to divine rank for the whole pantheon exists in name though the gods are now mere office holders whose posts last no longer than the duration of their merit The sentient universe then may justly be styled a society of selves in hierarchical order remembering always that there are worlds beyond our knowledge peopled by other selves of higher and lower range creatures of heavens and hells whose reality the school neither can nor will deny There is a strict régime of justice in this universe for each man reaps what he has sown.

Can we carry the doctrine further and claim that the environment of the selves is built up for the precise purpose of giving to each being its due meed of joy or suffering according to its deeds? There is no doubt as to the orthodox answer for we have seen it given by Praçastapada[1] in his theory of creation The virtue knowledge dispassion and powers of beings of all kinds are allotted to them by the god Brahman in strict accordance with their impressional potencies but he is not credited with actual cosmic creation of other than living beings for the creation of the worlds is assigned to the Supreme Lord himself It is impossible then to regard the universe as the creation of the merit of him who appears in it as Brahman and similarly the destruction of the universe is not due to the exhaustion of his merit[2] but is the work of the Supreme Lord from period to period for the deliverance of the Brahman of the epoch and other wearied living creatures Did Kanada hold the view that the unseen principle alone produced the periodic creation and destruction of the world? The obscurity of his Sutra leaves the matter open it may

[1] pp 48, 49
[2] Chatterji *Hindu Realism*, pp. 18 19

however, be remembered that Çankara[1] attacks the doctrine of atoms on the basis of their receiving their first motion from the unseen principle alone, but this may merely mean that he took advantage of the vagueness of the doctrine of the Vaiçeṣika Nor, certainly, can it be deduced from the word Kalpa used of a cosmic age that it is an imagining[2] of Brahman

The ceaseless process of creation and destruction carries with it important results It negatives once and for all the idea of progress, there is nothing new under the sun, and, though sound is not eternal, the teaching of the Veda is eternal, and has been handed down from age to age and from teacher to pupil The importance of this lies in the fact that the teachers of the Veda as Gautama assures us, were persons of authority, like those who laid down the science of medicine and spells—hardly reassuring society—and Kaṇāda himself fully accepts the weight of the authoritativeness of the sacred tradition Nor were the sages mere men of ability; they had a direct intuitive vision of the final truths, they desired to benefit men they had the desire to communicate their valuable knowledge[3] Thus all our knowledge is no more than the recognition of truths known long before us, and our conduct in like manner should accommodate itself to the rules which have been declared by the sages of old, the principles regulating castes and rules of life (*varṇāçrama-dharma*)

There can, therefore be no real attempt to place morality on a reasoned basis, merit and demerit arise from observation of the rules laid down by sacred scripture, resting on the divine prompting according to

[1] B.S. ii 2 11 17, on ii 2 37 In fact he admits that the Vaiçeṣikas have the idea of a creator

[2] *Hindu Realism*, p 172 It means 'arrangement

[3] VS. i 2, VS. i 2, v 2 1f

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[2] Chatterji *Hindu Realism* pp 12 1 2

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[2] *Hindu Realism*, p 172 It means 'arrangement

[3] VsU, p 2 VSV, p 2, v 2 16

Praçastapada[1] and the later school and possibly even in Kanada's view A considerable part of meritorious actions is made up of ceremonial ritual such as ablutions in the Ganges and the offering of sacrifices and Kanada's[2] rules of ceremonial have been twisted by his commentators to sanction monstrous conduct, which doubtless never entered his mind[3] But the more serious defect in the whole scheme is its completely self regarding character,[4] whatever value morality may have for others and for society at large its true end is the profit of the individual whose advance in the scale of existence towards final liberation is thus furthered But, more than this morality in the sense of choice of any kind is imaginary it is not open to a man to advance himself by seeking to follow the law even for selfish motives his action is determined irrevocably by his former deeds possibly in long anterior births and his freedom which is the requisite of morality is an idle dream no less unreal because with singular inconsistency the thinkers of India resolutely shut their eyes to this fatal difficulty in the path of the legitimacy for human life of the doctrine of retribution To enunciate the due reward of actions as explaining man's lot in life asserts a moral principle only to lose it again by denying man's power to choose his path of action

Why however if the practice of good deeds raises us ever in the scale of existence does not man by attaining the highest rank that of Brahman remain content in it for ever? Here again no obvious explanation can be given, how can he in the perfect wisdom he then has acquire demerit or lose his place? The only reply must be that the sin of some former birth comes to deprive

[1] p 7
[2] VSU vi 1 12 16
[3] vi 1 and 2
[4] *Hist Real ism*, pp 177–81

him of his high place so that all may realize that in earthly or heavenly pleasure there is no satisfaction Apparently even Brahman must be on the watch less others do better their work and win his place[1]

To escape this unending[2] process of troubled striving in which not even a god can find abiding joy it is necessary to turn to the knowledge of the self, as enjoined in the scriptures which demand meditation and reflection on the self It is egoism (*ahaṃkara*) which leads us to a false estimate of the things of life, we see the whole only in its beauty, and are moved to eager desire and action[3] or we see its defects and shrink from it but if we realized the parts which make up every whole we would see that they are compounds all of the same elements which arouse no emotion in us We would realize also the absolute sameness of the selves and their independence of the bodies in which at present they continue to transmigrate and our empirical existence would come to an end with all our woe

To attain this end we have the aid of the seers of old whose lore is handed down in the schools of the day A necessary propædeutic as Kanada clearly lays down is the performance of meritorious conduct Then only are we ripe to take up the first part of the course of instruction hearing (*śravaṇa*) the enunciation of truths from teachers From it we proceed to the examination in the light of reasons for and against of the truths thus accepted on authority It is at this stage that the philosophical expositions of Gautama and Kanāda and the systems based on them must be subjected to

[1] Nk p 6

[2] An absolute first creation is assumed to be absurd cf NBh i 1 19 iii 1 27 PBh, p 49 f for a proof see BS ii 1 34 6 with Śaṅkara

[3] NS iv 2 1 Cf NBh iv 1 1

examination In an interesting passage Vatsyayana[1] asserts the characteristic of the Nyaya philosophy which gives it a claim to be more than a mere doctrine of the self like the Upanisads It uses investigation (*anviksa*) to examine all things which are known to us whether based on the senses or on the sacred tradition It must not be thought that it is meant that philosophy can override that tradition which Gautama and Kanada constantly refer to Philosophy is rather the reasoned exposition and demonstration of that which is known already from a source of eternal truth the Veda If Kanada and his school deny a separate place to verbal testimony among the means of proof, that is only because it can be brought under inference since we believe testimony either because of the worth of him who bears it or the truth of the facts it reveals

But it is not enough thus to know the truths they must be realized in experience,[2] which is produced by concentration (*yoga samadhi*) of our mind on the object of knowledge[3] Such an experience must have been prepared for by merit of an earlier existence or period of our life, and it may be helped by restraint (*yama*) and observance of rules calculated to secure a due state of body and mind and the choice of a forest, cave, or sand bank for a place of meditation But it presupposes the mental preparation ensured by the study of the philosophy of the school and discussion with preceptors and others bent on truth The result of this mental effort is the attainment of the actual perception by the adept (*yogin*) of the self by a special conjunction of the self and the mind in the self[4] He has also perception

[1] NBh p 3 [2] Kir p 11
[3] NS iv 2 38-50 cf for details of Yoga NSara pp 38 39
[4] VS ix 1 11 15 NSara pp 37 271 ff 2, cf NSV v ff 16 PBh pp 281 282 NK, p 28[1], NVT 1 50 NVTP pp 379 81

of the other substances—the atoms space time the ether and mind—and he perceives their motion and their qualities as well as the qualities of the soul by their inherence in their substrates He will also have the power to withdraw the mind from the body and thus separate himself from his mortal frame like a snake from its worn out skin All his former lives will come to him and he will realize how his self passed from body to body on death and rebirth He will realize also it is later made clear the merit and demerit accumulated by him through former deeds and he will be able to construct bodies suitable for the embodiment of their experience In this way by actually experiencing the merit and demerit he will exhaust it and reach the stage of liberation in which there will be complete cessation of pain as a cessation of activity and rebirth There are however two stages of the vision of seers one appertaining to those who are complete masters of concentration with whom vision is ever present and the other which belongs to the less perfect visionary who needs to attain such insight the application of a definite act of concentration [1]

And here we must leave the mystic for the bounds of philosophy are clearly outpassed It is a strange and incomprehensible vision which the seer has before him in which the eternal structure of the world lies before him intermingled with the memory of the infinite detail of endless lives [2] Its objective value we may safely

[1] So VS ix 1 13 may be best be taken Cf PPI p 18 NK p 198 SDBT 67 with VSU and USV *Ibc* NSara pp. 3, 4 82 6, makes a division of Yogins according to having *samādhi* or not

[2] According to Chatterji, *Hindu Realism* p. 170 the Yogin has intuition of general truths or ideas, as existing independently from concrete realities But this is not in the texts, and is only a construction in recent works like VSV ix 1 15 NSara *Ibc* gives to Yogins in the

deny, since other mystics of India and distant lands have presented us with a very different picture of the beatific visions attained by them when the mind has been divested of all its normal trappings in the hope that thus there will enter it truths which are denied to the strivings of intellect And one further criticism is inevitable the problem how man is to counteract the effects of former deeds which must bear fruit proves intractable to a reasonable solution We are compelled in the normal theory of retribution to admit that no one life represents the whole of the potential merit or demerit of man were it not so there would not be a long round of varied lives in animals *man gods and denizens or* hell but there would be definite progress in one way or another It is impossible then to admit that the one life in which enlightenment is attained can extinguish all the prior merit and demerit and it is necessary *to conjure up new lives of a magic sort in* which the seer may experience in his proper self ere final emancipation the merit and demerit of his past Thus room is made for the introduction at a moment which should be sublime of an element of vulgar thaumaturgy which is in no wise excused by the fact that it can claim the august authority of the Upanisads and of the Vedanta itself

When then life finally ceases what is left? The schools reply The utter annihilation of pain',[1] and the answer is true, but at the cost of the complete annihilation of all that we were or sought to be What is the condition of a self which has ceased to be in relation with the transient and therefore can have neither consciousness feeling or volition is a problem which the

state of *samadh* an indeterminate perception of the whole expanse of reality at one glance Cf NM pp. 102 8

[1] NS i 1 22 NK p 6, TB p 91; *Padarthatattvanirupana* pp 49-51

schools make no effort to solve nor is their wisdom in silence doubtful [1]

The final severance of the self and the body is the aim also of the Sāṁkhya and Yoga schools, but there is a distinction in the conception which either school has regarding the severance of the self and the body If, the Nyaya [2] argues, the body is connected with soul merely in order to enable the latter to realize its difference from matter, and then to obtain permanent separation from it this end cannot be deemed to be accomplished for the same relation might easily occur even after the release of the soul mere knowledge of the distinction is not enough to produce final severance there must be a complete exhaustion of desert with which the possibility of revival of the connexion between self and body for ever disappears. Nor can the Nyaya [3] permit any breach through the intervention of God, in the series of fruition of mortal action It we seem not to see the fruition of man's deeds yet we cannot invoke the causality of God, for without action no fruition is ever possible and we must assume that ultimately all fruition results from man's action alone [4]

[1] NSārs, pp 39–41 pronounces in favour of real happiness in release but see NBh pp 30 4 NV ii 65–91 PSM p 81 The Nyāya of SSS vi 41–3 protests against the Vaiśeṣika ideal (v 36) of an existence without happiness like a stone and demands constant pleasure without objects of sense perception cf NVT pp 6 " NVTP pp 51 5 where the reference is to SSS vi 41 rather than as taken in the ed Cf NM, pp 507 ff

[2] NS iii 2 73–8 The Sāṁkhya retorts by rejecting the Nyāya view SS v 74, 75

[3] NS iv 1 19–21 the rendering in SBh viii 11 is quite impossible in asserting God's intervention cf p 266, n 1

[4] The meanest words merit in BBh pp 2 2 2 3 are commonplaces of Indian asceticism and need not be referred with Faddegon (p 301 to YS ii 30 or the Bhāgavata Purāṇa

CHAPTER X

THE EXISTENCE AND NATURE OF GOD

1 *The Theism of the System*

THE Nyaya Vaiçesika in the syncretist texts[1] is frankly theistic those which follow the tradition of the Vaiçesika and adopt its order of exposition, find place for the conception of God under the category of substance as one great subdivision of the self with which on their theory God has eight qualities in common the five common to all beings number as one dimension is all pervading individuality, conjunction and disjunction which are necessary in creation and cognition, desire and action But they admit that his cognition differs essentially from that of man in that it is eternal universal and absolute while that of man is transient particular and relative On the other hand the Nyaya tradition as seen in the *Tarkabhasa* not being confined within the strict system of categories of the Vaiçesika is free to treat God as a being of quite exceptional character not to be regarded as in any sense on a par with the human soul

It is of interest also that there is clear evidence in the fourteenth century of the very definitely religious tinge of the votaries who professed one or other of the systems Rajaçekhara, in his *Saddarçana-samuccaya*[2] expressly applies the term Yogi to the Nyaya and makes the followers of the Vaiçesika also in their religious aspect

[1] TK p 4 TS, § 17

[2] vv 91 113 199–31 Suali *Introd* pp 127 ff

similar to those of the Nyaya, the only difference between the two on his view is that the adherents of the Nyaya are called Çaivas, those of the Vaiçesika Paçupatas. He described the ascetic practices of these sectarians which equate them to the ordinary votaries of Çiva. His evidence is supported by that of Gunaratna in his commentary on Haribhadra's *Saddarçanasamuccaya*[1] of slightly later date though it is possible that he draws from the same source as Rajaçekhara. he gives four main divisions of the Nyaya Vaiçesika sectaries the Çaivas Paçupatas Mahavratadharas and Kalamukhas with various subdivisions including the Bharatas who are mentioned also by Rajaçekhara and whose characteristic trait was the fact that they accepted a man of any caste provided he was a devotee of Çiva. Jinadatta in his *Vivekavilasa*[2] about the middle of the thirteenth century states that the texts of the Nyaya and Vaiçesika were used in the Çaiva system and that these systems had Çiva for their deity. It is impossible to discredit the value of this testimony which is the more valuable in that the normal source whence to seek the inspiration of the Çaiva systems is the Samkhya which has admittedly close relations with the development of Çaiva philosophy. The antiquity of the connexion is attested by the tradition which is preserved by Praçastapada[3] that it was Çiva in the shape of an owl who revealed to Kanada the Vaiçesika system. Praçastapada[4] also in his exposition of creation uses as the name of the creator Maheçvara, a choice in which we can hardly fail to see a deliberate preference for the view that the true God is Çiva. Of Udayotakara we have the express evidence of the *Nyayavarttika* that he

[1] pp. 49 ff.
[2] viii. 295–301. Cf. SSS. vi. 13, 19.
[3] iii. 48, 49 at p. 7 Içvara is used.
[4] p. 39.

was a Paçupata, and it is interesting to note that in his *Nyāyavārttika*[1] he adopts theism and quotes a verse which is given by Madhava in the *Sarvadarçanasaṁgraha*[2] as one in which the supporters of the Çaiva system maintain the existence of God Theism in the Nyaya is shown to be recognized by Vatsyayana[3] not so much because he declares that the self sees all feels all knows all and perceives all a description which would hardly be true if he did not in the term self include God as the self *par excellence* as because of his defence of the activity of God in the fruition of deeds An express proof of the connexion of Nyaya with Çaivism is seen in Bhasarvajna's *Nyayasara*[4] which may date before Udayana and in which it is expressly said that final release is produced in the Çaiva system, and stress is laid on the necessity of the practice of the recognized kinds of mental concentration which at last will yield the direct vision of Maheçvara Similarly Udayana[5] who is the classical exponent of the theism of the two systems treats the God whom he demonstrates as equivalent to Çiva

Can we therefore assert that the silence of Kanada and Gautama unless in the latter case we believe that the self for him included God means that the authors of the *Nyaya* and *Vaiçeshika Sutras* were not believers in God? It has been contended not only that this is the case[6] but that the atheism of the schools was borrowed from the Samkhya but for this theory there is no positive evidence forthcoming and it must be judged merely on the probabilities of the case On the whole there is so little sign of Samkhya affinity that it would be as easy to attribute the atheism of the systems to the

[1] iv 1 21 [2] p 6 [3] NBh i 1 9 iv 1 21
[4] p 30 [5] kus ii 1
[6] *Garbe Samkhya* p. 119 *Phil. of Anc. India* p 23. He ignores the early evidence entirely

influence of the Purva Mimansa whose importance as discrediting the idea of God must not be underestimated A different explanation is suggested by the later and modern Indian doctrine[1] that the systems are not to be deemed as fundamentally opposed but as aspects or standpoints whence so much of truth is revealed as may be adapted to the minds which are to receive it. In this sense the doctrine is pressed too far it is the result of a philosophic mind reviewing from the standpoint of wide knowledge of the systems their points of community and seeking to find a comprehensive formula to fuse them in one. This can be accomplished by treating the Samkhya as a further advance in analysis on the Nyaya Vaiçeshika and then finding in the Vedanta the final truth But to convert a theory of reconciliation into sober history is unwise and unconvincing

On the other hand the actual condition of the two Sutras provides ground for the belief that they cannot be deemed to cover the whole field Neither gives the impression of a well thought-out and ordered whole Praçastapāda, indeed had to restate the Vaiçeshika before it could be deemed a systematic treatise in any sense and the Nyaya is so predominantly dialectical in interest that its excursions into metaphysics have an air of divagation from the work in hand which forbids us to assume that silence on any topic means its exclusion One thing at least is certain if we assume that Kanada[2] or Gautama intended the theory to stand by itself without the introduction of a creator we fall into the difficulties pressed relentlessly by Çankara who assumes

[1] Max Müller *Six Systems* p xviii Chatterji *Hindu Realism* pp 5 17 Gangānātha *JRAS* pp 6-8 Müller's denial (pp 276-81) of Jaimini's atheism is an error PSM., pp 82 8

[2] The commentators find references to God in VS. i 1 3 (= x. 2. 9) vi 1 1-4 ii 1 18, 19 as author of the Veda, of names, &c above chap v § 9 Baldegon (p 364) favours, without proving atheism

based on the regular alternation of day and night, the impossibility of the birth of a Brahman at the outset of creation without one of that caste to be his father the impossibility of the inauguration of language or traditional arts, and the impossibility of cessation in the process of the ripening of the fruits of action Merit he replies, may produce miraculous birth God may teach language and the arts assuming both the preceptors and the pupils forms[1] In deep sleep the fruition of acts is suspended and still more so at the destruction of the world, a view which removes the difficulty of the process of time Positively too the decay of customs morals and learning show how the Veda gradually dies out to be revived at a new creation

Thirdly, it is shown that no means of proof yields results opposed to the reality of God He is not perceived but *ex hypothesi* he is not perceptible He is inferred and inference is trustworthy its refutation always rests on inference which shows that it cannot inherently be invalid Comparison yields only knowledge of the significance of words and tells nothing of existence and thus cannot negate God Verbal testimony declares his being when it seems to negate it it merely denies him attributes The argument from presumption If God were omniscient would he not cause us to act without laying down injunctions? whence the uselessness of the Veda and the non existence therefore of its author are deduced is invalid for we must have directions for our actions, and in any case presumption and non apprehension are not valid means of proof

Fourthly the Mimāṁsā argument that even if God exists, he cannot be the source of right knowledge for us since his own knowledge lacks the essential characteristic of true knowledge, the apprehension of objects

[1] NSM iii 1507 ff

hitherto unknown is met by a denial of this definition of knowledge, right knowledge is an independent impression in accord with reality, and its truth does not depend on novelty

Finally, with some repetition direct proofs for the existence of God are adduced These are the nature of effects the combinations of atoms in creation the support and destruction of the world the existence of traditional arts, the authoritativeness of the Veda which produces right knowledge in us and presupposes a being who imparted this virtue its existence which implies a maker its consisting of sentences like books made by man and last the peculiar nature of number duality and subsequent numbers as we have seen have no absolute existence but depend on the relating power of the intellect and thus at creation it must have been God whose concept of duality produced the binary atom which ultimately starts the formation of the world The first five of these arguments however may be interpreted of scripture as referring to the purport of words which is God their explanation due to God their preservation through him their significance in words denoting God and the affix of the imperative which alludes in commands of scripture to the expression of the will of God

Leaving aside these needless exercises of ingenuity the argument for the existence of God rests on the fact that creation needs an agent The argument runs 'Every effect must have an intelligent agent the universe is an effect therefore it must have an intelligent agent This is the doctrine expressed by Çridhara[1] in commenting on Praçastapada's account of creation in

[1] NK, pp. 54 7 cf SDS ci xv NS ra pp 3o 3e 254 ff SSS vi 6 ff TC i 2 1 ff NBh NV NVT on iv 1 21 SDS 13 NM pp 190 ff GSAI xix. 11 15 TR pp 171 17e Kir pp 97 101

which the activity of a creator is assumed, but not expressly proved, and in the course of it he deals with some of the obvious objections to the theory It is objected that God, having no unsatisfied desires, cannot possess the necessary impetus to action to which the reply is that he acts for the benefit of other selves, which is a sufficient if not a selfish motive The further objection that in that case he should create pleasure alone in the world is met by the retort that in his action God is moved by the necessity of conforming to the tendencies of beings conditioned by their former actions and that pain is no unmixed evil since it leads beings to realize the vanity of mundane existence Nor is it a disproof of his independent divinity that in creation he should award beings lots according to their deserts, which is the due mode for a master to treat his servants. The minor objection to creation that the knowledge of words would be impossible is incidentally refuted by the quaint argument that it is the pain of birth which causes ordinary beings to lose their memory while the mindborn sons of Brahman suffer no such pain and from their past memory are able to revive at once the conventions of language

More serious is the argument that the syllogism adduced does not prove the result A jar is certainly produced by the potter but in addition to the knowledge of his material his desire and action he must have a body in order to bring about the result and therefore God must have a body, which is contrary to our observation The answer to this is that mere possession of a body cannot be the real point in question, for else a man while in sleep would be an agent, it must rather be the character of being an operator of instruments sufficient to bring about a result and an unembodied being can possess this power as in the case of the soul

which moves by its volition the body True the body exists and belongs to the soul, but it is the soul which impels, and God has the atoms to impel in lieu of the body which the soul has as its object Nor is there any real difficulty in understanding how he can possess intelligence, desire and volition as eternal, whence his power of creation may be derived On the other hand, it is urged that the souls and the atoms together can account for the whole of creation To this Çridhara replies that this cannot be, since until creation has operated, the souls are not united with sense organs through which alone they can possess cognitions If it is replied that the soul has an inherent intelligence which is all-pervading the answer is that this is contrary to experience which shows that the soul on birth in a body finds all things new and that therefore it does not continuously function so that we are compelled to resort to illegitimate hypotheses if we depart from the sound view that a soul needs sense organs to be conscious It follows therefore, that creation requires the operation of an active intelligence which is that of God The unity of God follows from the fact that there is no ground to accept a multiplicity of equally omniscient beings to perform the work of creation and further such a multiplicity would by interference rather hinder than further the result

The qualities [1] of God follow from his complete knowledge, he cannot be ignorant, nor have attachment or aversion from objects, hence he cannot have any activity, or acquire merit or demerit, or their consequences pleasure and pain Nor can he have impressions since all his knowledge is immediate and eternal This enumeration however leaves one obvious difficulty,

[1] NK p 58, SSS vi 14 He is all pervading and has individuality conjunction and disjunction

that the universe is a product can be assailed, we can adduce only individual cases of products, to assert that the whole of which they are parts must be a product is a paralogism. Nor indeed can we prove that every thing is produced, even among ordinary things for our sphere of knowledge is severely limited Again the atoms ether, time and space souls and minds are admittedly eternal and uncreated, therefore the argument that the universe must have a creator is inconsistent and illogical Nor indeed is it legitimate to call the world a product and argue thence to the cause unless the cause can be proved independently Moreover, God as possessing will must have desire and pleasure and pain and so is no more than glorified man In truth it is plain that a creator who is only powerful to create and destroy at intervals in strict accordance with merit and demerit and who exercises no influence at all on the fates of mankind is a strange anomaly

But, whatever the difficulties in the theory it is plain that it was impossible for the schools to remain without it for they could not otherwise conceive the beginning and end of the world in which they believed as an established traditional doctrine and which it must be remembered was especially connected with Çiva as the destroyer and the Brahmanical deity *par excellence* Moreover even had they been willing to ignore this dogma they would have been in no better case, for, on their theory of eternal independent substances there is no ground of connexion between self and body, and an intermediary must be found The Jain view of self moving atoms is more simple in one sense but it is less philosophical reflecting as it does nothing but a primitive animism The intervention of God as the first origin of motion was thus natural and it obviously adapted itself well to the traditional cosmogony But,

even so one difficulty remains obvious, how comes it that all the souls lose their activity at the time of dissolution and regain it at the coming into being of the world? Such a preconceived harmony is inexplicable unless a direct intervention of God is imagined, consisting at least in postponing while not diverting the fruition of action—as in deep sleep but curiously enough Çridhara shrinks from drawing this obvious and indeed necessary conclusion. While the Vedanta suppresses the reality of the individual in the absolute and the Sankhya insists on the existence only of mutually unconnected individuals in both cases denying any possibility of system in the universe, the Nyaya Vaiçeshika produces but in a mechanical and external form a certain measure of unity. All three however agree in denying any real value to human experience and endeavour and stand in fundamental contrast with the tendency of recent thought whether theistic[1] or atheistic[2] to view the process of the universe as real and to insist on the fact not of the independence and self sufficiency of the individual but of the necessity of the communion of selves as the basis of their reality.[3]

On a lower plane of popular thought stands the conception of the *Nyāyasāra*[4] reflected in the *Sarvasiddhāntasangraha*[5] in which Çiva appears as the omniscient creator by whose grace the reward of devotion,

[1] e.g. G. H. Howison, *The Limits of Evolution*, pp. 325 ff.; Hastings Rashdall, *Theory of Good and Evil*, ii. 239 ff.

[2] e.g. J. E. McTaggart, *Studies in Hegelian Cosmology*, pp. 3 ff.

[3] Contrast Pringle Pattison, *Hegelianism and Personality*, pp. 225 ff., and *The Idea of God*, pp. 385 ff. In B. Bosanquet's *Value and Destiny of the Individual* as in F. H. Bradley's *Appearance and Reality* the individual is overwhelmed in the absolute as in Çañkara.

[4] pp. 38, 40, 41.

[5] v. 10, 31, 5 (Vaiçeshika), vi. 10-21, 40-4 (Nyāya).

the worshipper obtains release in the form of eternal pleasurable consciousness This in the Nyāya and Vaiçeshika we find, as in the Vedānta of Rāmānuja, an effort to adapt philosophy to meet the cravings of popular theology

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